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FINAL REPORT ON THE NATIONAL SEMINAR ON POPULATION AND DEVELOPMENT IN THE UNITED REPUBLIC OF TANZANIA

Arusha, 17-24 February 1980

Organization, recommendations and papers presented

LC/NAIROBI

ECONOMIC COMMISSION FOR AFRICA / INTERNATIONAL LABOUR ORGANISATION

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PREFACE

The National Seminar on Population and Development, held in Arusha, United Republic of Tanzania from 17 to 24 February 1980 was jointly organized by the Economic Commission for Africa (ECA) and the International Labour Organization (ILO) in the context of one of the objectives of the World Population Plan of Action aimed at increasing national awareness of the interrelationships between population and development. It was financially supported by the United Nations Fund for Population Activities (UNFPA) and benefited from the assistance of the then UNFPA Co-ordinator, Dar-es-Salaam, the late Helen Lewis Jones.

A debt of gratitude is owed to many international observers including the Population Council, the Ford Foundation, FAO, UNICEF, USAID, and the United Kingdom Overseas Development Ministry, participants from Kenya, Uganda and Zambia and several other individuals who, in various ways, assisted with the organization of the seminar and the completion of the reports. Mention must be made of the secretarial staff of the ECA Population Division for providing the supporting infrastructure needed to publish the seminar reports. Gratitude is also expressed to the Tanzanian Government and officials for their support and assistance in making the Seminar a success.

This is the second and final volume of the seminar report. The first volume contained a summary of the seminar deliberations. This volume contains summaries of the Seminar's organization, recommendations, papers contributed, speeches, country statements and a list of participants, as well as edited versions of the 14 papers originally submitted to the Seminar. The views expressed in the papers are, however, those of the individual authors and not those of the United Nations.

Adebayo Adedeji
United Nations Under-Secretary-General
and
Executive Secretary
of Economic Commission for Africa

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ORGANIZATION OF THE SEMINAR

ORGANIZATION OF THE SEMINAR

Date and Place

The national seminar on Population and Development in the United Republic of Tanzania was held in Arusha, Tanzania from 17-24 February, 1980.

Background

One of the resolutions adopted at the 1974 World Population Conference at Bucharest focussed on the work programme in the field of population and urged United Nations bodies, inter-alia, to intensify work on interrelations of population and development. Pursuant to that resolution, the fifth Meeting of the Conference of Ministers held in Rabat from 20-28 March 1979 endorsed the report of the Third Session of the Conference of African Demographers and requested the ECA Executive Secretary to carry out a study of population levels and trends in relation to economic and social development. Similarly under the ILO's World Employment Programme, studies on the interrelationships between socio-economic and demographic variables and development planning in general are being undertaken in various countries of the world.

It is felt that seminars and workshops present a useful forum for highlighting the interrelations between demographic factors and socio-economic development, as a means of increasing awareness of the need for demographic factors to be taken into consideration in the preparation and development of national socio-economic development plans. Accordingly, the ECA secretariat and the ILO have organized a number of national seminars on population and development with the assistance of UNFPA. It was in the same spirit that the present national seminar on population and development in the United Republic of Tanzania was organized jointly by ECA and ILO.

Objectives of the seminar

These were:

(i) to review the planning process in the United Republic of Tanzania
(ii) to develop an overview of population and demographic activities in the United Republic of Tanzania
(iii) to determine whether population and demographic factors have been integrated into the planning process.
(iv) to prepare a draft recommendation to the Government for follow-up action and programmes for integrating population factors and demographic variables into the planning process, where relevant and necessary, including data and research needs, organization, etc.

Attendance

The seminar was attended by representatives of Government departments, the University of Dar-es-Salaam, UWT, UMATI and JUWATA, observers from Kenya, Uganda and Zambia and representatives of the ECA Population Division, ILO, UNICEF, Ford Foundation, USAID, FAO, UNESCO, UNFPA, Population Council, RIPS and Overseas Development Ministry.

Election of Officers

The meeting elected the following officers:

- General Chairman	Mr. N.N.P. Shimwela
- General Rapporteur	Dr. Ita I. Ekanem

Adoption of the Agenda

After some discussion, the meeting adopted the following agenda:

1. Opening of the seminar
2. Adoption of the Agenda
3. Organization of work
4. Demographic situation
   Review of the population situation in the United Republic of Tanzania
5. population and development
   The relationship between population and economic development:
   - its application to unemployment in the United Republic of Tanzania.
6. Planning in the United Republic of Tanzania
   (i) The planning organization and process
   (ii) The use of demographic variables for rural development planning
   (iii) The role of demographic variables in the planning process in Zanzibar.
7. UNFPA field experience in population and development.
   The relation of population factors to the planning process; the experience of UNFPA in assisting countries.
8. Population Policy
   Current population policy in the United Republic of Tanzania
9. Education and health planning
   (i) Population and education planning in the United Republic of Tanzania
   (ii) Population and helath planning in the United Republic of Tanzania
10. Manpower planning
    Demographic aspects of manpower planning in the United Republic of Tanzania
11. Wormen and Planning
    (i) Relationship between the changing roles and status of women and national development in the United Republic of Tanzania
    (ii) Women and their role in development

- Population related research
  - (i) priorities in the United Republic of Tanzania
  - (ii) Investment in demographic studies and its utility: trends and prospects in the United Republic of Tanzania
- Country Statements
  - Kenya
  - Uganda
  - Zambia
- Discussion groups
  - (i) Needs, priorities and use of population data, collection and analysis for planning
  - (ii) needs, priorities and use of population research and training for development
  - (iii) organization and structures for integrating population into development planning.
- Adoption of the Report.
- Closing of the Seminar.

SUMMARY OF RECOMMENDATIONS

SUMMARY OF RECOMMENDATIONS

DATA COLLECTION AND DISSEMINATION

On the issue of population data collection for socio-economic planning, the seminar recommended three priority areas. The first was the collection of data which were not currently available, involving the strengthening and extending of the existing civil registration system and gathering more data on agricultural production and food consumption, nutrition and health, female labour force participation and energy. The second priority was the collection of more data on manpower, employment, migration, construction, housing conditions and trade. The third priority was the collection of adequate data on manufacturing transport and communications, trourism, banking, finance and mining. To avoid duplication, it was recommended that a unit should be established within the Central Bureau of Statistics to coordinate data collection, documentation and dissemination of information and that users' seminars and workshops should be organized as a means of enhancing data use in planning.

TRAINING

It was recommended that various ministries and other institutions should identify their manpower requirements for data collection and processing, data analysis and utilization, and planning. Training could be done through special courses at various levels in some of the existing institutions including national and foreign universities. Where foreign experts were involved, local counterparts should be trained to take over when experts left. Consideration should be given to establishing a Population Association as a means of providing a forum for exchanges of views among those interested in population matters as they affected socio-economic development.

RESEARCH

The seminar considered that a position paper on previous research in the United Republic of Tanzania should be commissioned as a priority and should serve as a basis for determining research priorities, with due regards for the areas of research suggested by the seminar. Research should be policy oriented. Some of the recommendations made on research included the following (a) continuous documentation of population and development research in the country (b) communication of research findings to potential users using whatever communication medium was available (c) informing data users in the early stages of research and formulation so that their needs could be taken into account and (d) the need to present research findings in simple language so that policy-makers and planners could easily understand them.

INTEGRATION OF POPULATION FACTORS INTO DEVELOPMENT PLANNING

For population factors to be incorporated in development planning, the seminar recognized that accurate data on population size, structure composition, components of change etc. were needed. There was a need to arouse a general awareness of population issues. In order to increase the awareness of the people who played an important role in planning, the following recommendations were made:

(a) The curriculum of institutions of higher education should include some background information on the population situation in Tanzania with emphasis on composition, distribution, growth rates, fertility, mortality and regional differences between them.

(b) Population studies at the University of Dar-es-Salaam should be expanded so that more people could be trained in population matters.

PAPERS PRESENTED

A REVIEW OF THE POPULATION SITUATION IN THE UNITED REPUBLIC OF TANZANIA*

DEMOGRAPHIC HISTORY 1/

1. The United Republic of Tanzania demographic history dates back to 1910 when the first count was taken in Zanzibar separately for Africans and non-Africans. Other population censuses were taken in 1921, 1931, 1948, 1952, 1957, 1958, 1967 and the latest in 1978. The timing of the first two enumerations was in accordance with the census in the United Kingdom and its associated Territories. The 1941 Population Census could not be held because of the Second World War; 1948 was the earliest year in which the East African Statistical Department, formed in 1947, could organize a full census in the United Kingdom Territories of East Africa.

2. Nearly all censuses prior to the 1948 census can be termed counts of the African population. Kucyznski defines a count as "an enumeration made either without any forms or with collective forms in which are entered particulars of groups (for example, the population of a village)". 2/ The Population Census of 1948 may be regarded as the first modern census to be taken in Tanganyika and Zanzibar. For the first time in 1948 a certain proportion of the African population was asked more detailed questions in an attempt to obtain information which was regarded useful to the Government and which would have been difficult to collect for the whole population of Tanganyika. The 1957 African Census of Tanganyika similarly included a sample census conducted after the general census.

3. The 1967 population census which was held in mainland Tanzania and Zanzibar at the same time was the first census to be taken in the United Republic of Tanzania after independence. During the 1967 population census, a sample of the rural population and the whole urban population were covered by a detailed questionnaire. In August 1978, the second post-independence census was taken exactly 11 years after the 1967 census. In normal circumstances a census is taken every ten years. However, the census could not be taken in 1977 for three basic reasons. Firstly, since the Government had decided to have as good a census as possible, the census planners conceived it to mean a modern census that would follow the United Nations principle Recommendations for the 1980 Round Population Censuses. It was agreed to study those recommendations before any meaningful preparations could begin. Secondly, in 1973 mainland Tanzania carried out the national demographic survey whose analysis could not be completed early. It was, therefore, logical to finalize it before the Statistical

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1/ A detailed account of the population censuses prior to the 1967 Census is given in the 1967 population census, census methodology, vol. 5, Ch. I. Bureau of Statistics, Dar-es-Salaam, 1971.

2/ Kuczynski, R.R., Demographic survey of the British Colonial Empire, vol. II, Oxford, 1949, pp. 95.

* Prepared by S.A.M. Ngallaba

Office could embark on a census. Thirdly, since the Government had found itself in a position whereby the census project had to be financed from local resources, it became obviously difficult to get funds as the economy was just recovering from the severe drought of 1974/75. Postponement of the census was therefore necessary until funds became available.

4. Apart from censuses, a national demographic survey was held in 1973 in mainland Tanzania. The principal purposes of the survey were to study on a regional basis fertility levels, trends and differentials as well as mortality levels and differentials and the growth rate of the total population. Censuses and surveys are the main sources of demographic data in the country. Vital registration of births, marriages and deaths had failed to supply complete and reliable data.

5. The purpose of this paper is to review the population situation in the United Republic of Tanzania using 1967 census data, the provisional results of the 1978 population census and other available population data. An attempt will therefore be made to look at the size and composition of the population, population growth during the period 1967 to 1978, population distribution and density, fertility and mortality levels and trends. Finally an attempt is made to project the population to the year 1995.

POPULATION SIZE AND GROWTH

6. Published results of a census, like the 1967 and 1978 censuses, usually provide data on total population by sex, age, number of households for the whole country, regions, districts, wards, towns, enumeration areas, etc. Results from the 1967 census showed that the United Republic of Tanzania had a total population of about 12,313,469 occupying a land area of approximately 386,090 km^2. The 1978 population census which was held 11 years after the 1967 census showed that the population had grown to 17,527,564. Similarly, the total population of the different administrative regions had increased tremendously.

7. As table 1 shows, population growth rate for mainland Tanzania between 1967 and 1978 was 3.2 percent per annum. There are reasons to believe that the growth rate is likely to be too high. It is suggested that the 1978 census was of better quality than the 1967 census for the following reasons. Firstly, the villagization programme was a very important factor in favour of the 1978 census. Unlike the 1967 census which was conducted when most of the rural people were living in scattered settlements making it very difficult for enumerators to locate them, the villagization programme made the work of enumerators much easier, thereby ensuring almost full enumeration of the rural population. Secondly, the time factor is a very important element in census taking. Unlike the 1967 census when preparations did not start until January 1967, the preparatory machinery for the 1978 population census had been established by 1976, which made it possible for various census operations, such as geographical

work, pilot tests and census education, to be properly undertaken. Thirdly, political stability coupled with the administrative structure was another major factor that contributed to the success of the 1978 census. The ruling party was fully involved at the grassroots level. Ten-cell leadears were operating throughout the country and it was from those cells that the enumerators worked.

8. Hence the 1978 population census was better organized than the 1967 census. The under-enumeration of the 1967 census, believed to be about 2.5 per cent was significant. Taking into account the 1967 underestimation, the growth rate between 1967 and 1978 comes to about 3 per cent per annum, a rate which is considered to be more plausible particularly when compared to the rate of natural increase of about 2.9 per cent per annum derived from the age distribution.

REGIONAL GROWTH RATES

9. Regional growth rates reveal substantial differences among the regions between 1967 and 1978. As table 1 shows, the Coast region had the lowest growth rate of about 1.7 per cent which can be attributed to the fact that Dar-es-Salaam city is exerting a pull on the population of the Coast region. Dodoma, Iringa, Kingoma, Mara, Morogoro, Mwanza, Singida and Tanga recorded annual growth rates of between 2.6 per cent and 2.9 per cent. These rates look plausible and are in line with the average growth rates of most developing countries.

10. Mbeya Kilimanjaro, Ruvuma and Shinyanga had growth rates between 3 per cent and 3.6 per cent. These regions are characterized by high birth rates and low death rates with the exception of Mbeya which until 1967 had a high death rate, but with the improvement in health services the death rate has been substantially reduced, thus giving a higher rate of natural increase.

11. Growth rates of between 3.9 per cent and 4.6 per cent recorded in Arusha, Rukwa, Tabora and West Lake regions are definitely on the high side. The refugee population which constitutes about 12 per cent of the total regional population of Rukwa and Tabora must have contributed to the growth rates of these regions; however, other factors might have affected these three regions. Most of these regions are sparsely populated, the greater part is covered by forests infested with tsetse flies and wild animals, and most parts are not easily accessible. This was even more true during the 1967 population census when it was difficult to reach everybody resulting in under-enumeration particularly with respect to the migratory population in Arusha. The increased coverage of the migratory population may partly explain the high growth rate in Shinyanga. The growth rates in Mtwara and Lindi regions were below the estimated national average rate of growth because after Mozambique attained independence by 1978, most Mozambiquans had returned home.

DISTRIBUTION BY AGE AND SEX

12. Data by age group are usually affected by errors in reporting of ages and variations in the completeness of enumerations. This is normally the case in Africa where data on age are subject to substantial errors. Recording of sex data may be more complete for one sex than the other.

(a) Sex ratios by region

13. As can be seen from table 2, of the 20 mainland Tanzania regions, three regions (ie. Arusha, Tanga and Dar-es-Salaam) had male-female sex ratios of over 100 in the 1967 census. Sex ratios were near 100 in Morogoro and Mwanza. In all other regions the sex ratios were less than 100, with Iringa, Singida and Kigoma having sex ratios less than 90. At the time of 1978 census, Arusha still maintained a high sex ratio of 104 while in the case of Tanga the sex ratio had dropped to 99 indicating that there had been probably an out-migration of males (barring enumeration errorsbetween 1967 and 1978. The other regions have maintained almost the same level.

14. While the over all sex ratio for mainland Tanzania has remained almost the same, that of Zanzibar has shown a decrease from 102 to 99, possibly implying that either males had moved out of Zanzibar to the mainland or there had been an in-migration of females from the mainland. The truth will be determined at a later stage when the data on migration are studied in detail.

(b) Broad age distribution by region

15. From the recorded data on age by region, a summary of the age structure is given in table 3 where the proportions of the population under 15 years, 15-64, 65 and over are shown. According to the 1978 count, in mainland Tanzania about 46 per cent of the total population is under 15 years, while the proportion of the working population, ie. the population within the age group 15-64, is only half of the total population. This implies that about half of the population will have to support the young and old. As for Zanzibar and Pemba the position is slightly different. About 47 per cent of the population is in the age group 15 to 64 years, while the proportion under 15 years is about 49 per cent of the total population.

16. Out of 20 regions on the mainland Tanzania, seven regions have less than 45 per cent of their population under 15 years; they are Morogoro, Coast, Dar-es-Salaam, Lindi, Mtwara, West Lake and Tabora. In Kilimanjaro, Iringa, Shinyanga, Rukwa, and Mara, the proportions of population under 15 years are above 48 per cent, while the remaining eight regions have proportions of population under 15 years of between 45 and 48 per cent.

17. In comparing the 1967 and 1978 censuses, the proportion under 15 years was higher in 1978 than in 1967 (ie. 46.1 as compared to 44.3) which implies that the population was probably younger in 1978 than it was in 1967. Furthermore, compared with other countries the United Republic of Tanzania emerges as one of the developing countries with the highest proportion under 15 years, as table 10 indicates. The implications of such a young population for future natural expansion of the population are obvious.

POPULATION DISTRIBUTION AND DENSITY

18. The 1967 census showed a marked uneveness in the distribution of the population as table 5 shows. Such regions as Arusha, Lindi, Ruvuma, Tabora and Rukwa were virtually uninhabited, while large numbers of people were concentrated in Zanzibar islands, Kilimanjaro and Mwanza regions. 1/ Dar-es-Salaam region which is 77 per cent urban was the most densely populated area with 256 persons per km^2, while mainland Tanzania in general maintained a low density of 13. The 1978 population census results have shown the same pattern and confirm that the country is a low density population area if compared to other countries of the world. The table below shows the population densities for selected countries.

Population density for selected countries

Country	Density (persons per km^2)
United Republic of Tanzania, 1978	20
Kenya, 1969	23
Uganda, 1969	49
Zambia, 1969	7
Burundi, 1970/71	135
Malawi, 1966	43
India, 1971	182
Japan, 1975	298
Branzil, 1970	13
Netherlands, 1971	334

Source: Demographic Yearbook, 1975, United Nations, New York 1971.

1/ Maps and diagrams showing the population distribution, factors influencing distribution, relative and change in relative distribution are presented in The Population of Tanzania, An analysis of the 1967 population census, edited by Egero, B. and Henin, R.A. Dar-es-Salaam, pp. 42-45.

19. Table 5 shows the differences in the population distribution which have been caused basically by diversity in climatic and environmental conditions. The high density areas can be grouped as follows:

(a) The high rainfall areas of Usambara, Pare, Kilimanjaro and Mount Meru in north east, Bukoba (west of Lake Victoria), Uluguru mountains, the southern highlands around Mbeya district, the western Rift Valley highlands in Kigoma and Kasulu and the Zanzibar and Pemba Island;

(b) The Lake Victoria plains which are characterized by rich soil. These lie around the lake extending to Shinyanga and Nzega in the south.

(c) The coastal belt, particularly those areas surrounding the major towns of Tanga, Dar-es-Salaam, Lindi and Mtwara.

The Central high plateau extending from Mbulu in the north to Iringa in the south is considered a moderate density zone. These areas have moderate rainfall and are therefore not attractive enough. The Miombo woodlands of central plateau and south-western part of the country and the Masailand are the sparsely populated areas. These areas are mostly inhabited by wild animals and some of them have tsetse flies which make human settlement almost impossible.

20. A further element of the population distribution which should be noted is the urban population growth. The urban population appears to have more than doubled from 6.2 per cent in 1967 to 13.3 per cent in 1978. This growth rate is not realistic for two basic reasons. First, the definition of urban area has changed drastically. Whereas in 1967 it applied to 15 major (gazetted) towns in mainland Tanzania and Zanzibar town in Zanzibar and 20 small (former) township, in 1978 the definition applied to all regional and district headquarters and suburban settlements (97 in all). Secondly, the boundaries of most urban centres were altered to include areas considered rural in 1967. As table 6 shows, some urban centres have recorded a very high rate of growth, such as Dar-es-Salaam, whose boundaries have extended to include new settlements built up between 1967 and 1978. However, this is an area which requires research to determine the rate and causes of urban growth in the United Republic of Tanzania.

21. It is generally argued that between 1967 and 1978, there had been a remarkable change in the population distribution particularly after the villagization programme, popularly known as "Operation Vijiji", launched in 1967. 1/ Of the total number of rural households in mainland Tanzania, about 96 per cent were in villages. Table 7 shows the number of rural households in villages for every region in mainland Tanzania, and their proportion to the total rural population.

1/ The villagization programme as it is understood in mainland Tanzania has not been introduced in Zanzibar. For further explanation, see table 7 and its footnote.

MORTALITY AND FERTILITY 1/

22. Although data on fertility and mortality in particular as well as other demographic statistics are still incomplete and unreliable, the three censuses held in 1948, 1957 and 1967 and lately the 1973 national demographic survey, have helped to give an indication of the levels of fertility and mortality.

23. The information on mortality in the 1967 census was based on the data on children still alive among those ever born to women in various ages. The Brass technique 2/ was used to estimate mortality rates from survival rates. However, this technique, being simply a transformation, could not rule out irregularities in the base data particularly in the higher age groups. Making their final conclusions on their findings about mortality from the 1967 census, Egero and Henin 3/ had the following to say: "The 1957 mainland estimates of crude death rate and life expectancy were 24-25 per 1000 and 35-40 years respectively. For 1967 we remain confident that the life expectancy is over 40, though probably close to 41 but certainly not higher than 43 years. The corresponding crude death rate is estimated to be between 21 and 23 per 1000". On the pattern of mortality by age, Egero and Henin assert that: "The mainland infant mortality in 1967 appears to be as low as 160 per 1000 or less, a considerable reduction compared to the only figure given in the 1957 census report, 190 per 1000. On the other hand, there is little doubt of a relatively high mortality in the ages between 1 and 5, possible connected with weaning".

24. From the 1978 population census, attempts were made to arrive at an estimated death rate by using the recorded female age distribution. 4/ The estimated crude death rate for mainland Tanzania is around 18 per 1000. This appears to be close to the estimated death rate of 18-20 per 1000. This, therefore, points to a decreasing trend in mortality although the pace of such a trend is difficult to determine on the basis of these vague estimates.

1/ The presentation is mainly confined to mainland Tanzania. No separate estimates of vital rates have been made for Zanzibar owing to lack of sufficient and reliable data.

2/ Brass, W. et al in The Demography of Tropical Africa, Princeton University Press, 1968, ch. III.

3/ Egero, B. and Henin, R.A., op. cit, ch. 11, pp. 176-185

4/ The birth and death rates were obtained by calculating the female child/adult ratio (ie. females aged 0-4/women aged 15-44) from the provisional results of the 1978 census in conjunction with the mortality level (e_0^0 = 47) and the mean fertility distribution (to select a model age distribution) from the 1973 national demographic survey. Similar exercises were used, this time by using the 1978 census proportions of the female population under 5, under 10, under 15, under 25, under 35 and under 45, to the total female population. The mean value of the rates obtained was, therefore, selected.

25. With regard to fertility there are data for analysis and comparison, although such data are not as reliable as those derived from vital registration. The 1967 census asked retrospective questions on fertility and "current" fertility from women aged 12 years and above. The data on births during the 12 months preceding the census were subject to errors of "recall lapse","boundary effect" and general misunderstanding which frequently beset the answers to such questions. The child-woman ratios were affected not only by age mis-statement and possible under estimation or over-estimation of children, but also by differential mortality. On the number of children ever born alive to women 12 years and over, the information on total live births provided by older women is frequently distorted by large-scale omissions of children who have either died in infancy or grown up and left the home.

26. In the 1978 population census, the format of the fertility questions was modified in an attempt to reduce the error brought about by the recall lapse or boundary effect. The questions asked to all women 12 years and over were as follows:

(a) How many children has a woman given birth to and how many

- are now living with her?
- are now living elsewhere?
- have died?

(b) When did her most recent live birth take place?

Apart from the above two questions the child-woman ratio remains another source from which fertility indices would be derived. However, age distortions found in census data necessitate some caution in the use of estimates based on age. 1/

27. From the available census information some conclusions were made with regard to the fertility estimates. From the 1957 population census, despite the distortions in the collected data, it was agreed that a crude birth rate of 46 per 1000 and a total fertility rate of 5.6 live births per woman could be taken as the best estimates for mainland Tanzania. A total fertility rate of 6.6 and a birth rate of about 47 per 1000 were considered as plausible estimates for mainland Tanzania derived from the 1967 population census, while the 1973 national demographic survey gave a crude birth rate of 47 per 1000 and a total fertility rate of 6.3.

1/ The 1978 population census has not been fully processed. Therefore, no attempt has been made to assess the trustworthiness of these sources of fertility data.

28. Using the female age distribution obtained from the 1978 population census, some basic estimates on fertility have been arrived at. 1/ Although there are possible age distortions that necessitate some caution in using these estimates, there is no doubt that a crude birth rate of 47 per 1000 and a total fertility rate of 6.5 may be closer to the truth. Since most of the census data are still being processed, there is no other source which could be used to give a more plausible estimate.

POPULATION PROJECTIONS 2/

29. When a country draws up development plans, there is a pressing need to know about the future size and age and sex distribution of the population. After the decentralization in the United Republic of Tanzania whereby planning was to be on a regional basis, there was a need to make estimates for each region. One of the main purposes of the national demographic survey of 1973 was to provide the necessary information for producing national and regional population projections. Therefore, projections of the population by age and sex up to 1990-1995 were made for all regions and for mainland Tanzania as a whole based on fertility and mortality rates derived from the 1973 national demographic survey, as well as the age distribution. Data on population size were obtained from the 1967 census.

30. However, these estimates are considered as point estimates and do not take into account any fluctuations that may occur between now and year 1990-1995. Low and high estimates should have been given to enable the reader to determine the probability of any changes. This implies, therefore, that the population projections which appear in table 9, taking into consideration the long period covered (ie. 1970-1975 to 1990-1995), should be treated with caution.

31. When making the projections for each region, Henin, Ewbank and Hogan 3/ drew up the following assumptions:

(a) Life expectation at birth will rise by 2.5 years during each five year period until it reaches 56. Thereafter it will remain constant. The age-specific and sex-specific mortality rates were taken from Coale and Demeny North model life tables. 4/

1/ Ibid.

2/ No attempt has been made to make population projections based on the 1978 population census results, as these are not yet processed.

3/ Henin, R.A. et al in The Demographic of Tanzania, An Analysis of the 1973 National Demographic Survey of Tanzania, vol. VI, ch. 14, Bureau of Statistics Demographic Unit, BRALUP, University of Dar-es-Salaam.

4/ Coale, A.J. and Demeny, P., "Regional model life tables and stable population", Princeton University Press, 1968.

(b) The total fertility rate rises by 0.1 every five years until it reaches 6.5. Thereafter, it remains constant. For those regions where total fertility rate was already 6.5, it is assumed to remain unchanged. The age patterns of fertility were taken from Coale and Trussel. 1/

(c) The starting population was taken as the 1967 population projected forward to 1970 by Egero and Henin, 2/ divided into males and females using the census sex ratios.

(d) The age distribution for each region was based on that recorded in the 1973 national demographic survey. As there were known errors in the recording of age, age distribution by region was graduated. An analysis was made of the mainland age distribution, and adjustment factors were derived. These factors were then applied to regional age distribution.

(e) The effects of interregional and international migration are ignored, as highly dependent on political and economic decisions. What these will be and what their effects may be are nearly impossible to predict.

Since migration is ignored, meaningful projections for Dar-es-Salaam are impossible. Table 8 shows the projected total fertility rates, crude birth rates and crude death rates by region for each of the five-year periods while table 9 shows the projected population by region for each of the five-year periods with the proportion of the population under 15 years.

32. Since projections are hypothetical, what was predicted, based on the levels, trends and differentials of fertility and mortality observed in the 1973 national demographic survey, will hold true if assumptions are approximate. Certainly it is difficult to predict correctly the course of demographic development over the next 20 years. However, the results of the 1978 census will help to review once again the levels, trends and differentials of fertility and mortality. This will also throw light on the extent of interregional migration.

1/ Coale, A.J. and Trussell, T.J. "Model fertility schedules: Variations in the age structure of childbearing in human population". Population Index, April 1974.

2/ Egero B., and Henin, R.A., op. cit., ch. 14.

SUMMARY

33. This review of the population situation in the Republic of Tanzania has concentrated on the period between 1967 and 1978. The population size changed from about 12.3 million in 1967 to almost 17.5 million in 1978. This implies that population during this period grew at an annual rate of 3.2 per cent, which is quite high. Considering that the 1967 census is thoughtto have underenumerated the total population by about 2.5 per cent, then the growth rate would be about 3 per cent.

34. The rapid rate of population growth has the effect of increasing the population under the age of 15. The proportion of this age group was about 46 per cent of the total population in 1978, those in the working group ie. 15 - 64 was about 50 per cent. These proportions have economic implications for meeting the needs of the population under 15 years, eg. school requirements and facilities, food, clothing etc.

35. The United Republic of Tanzania is sparsely populated as revealed from the population density which increased from 14 persons per km^2 in 1967 to 29 persons per km^2 in 1978. However, this should not encourage rapid population growth. The main concern should be to relate population size and growth to available resources in the country.

36. Estimates from 1967 census, 1973 demographic survey and provisional 1978 census data all indicate that the crude birth rate was about 47 per 1000. Total fertility estimates were as follows: 1967 census, 6.6; 1973 national demographic survey, 6.3; and 1978 census provisional data, 6.5. From a total fertility estimate of 5.6 from the 1956 census, fertility has increased substantially. Mortality, however, seems to have declined based on the crude death rate estimate of 21-23 per 1000 in 1967 to 18 per 1000 based on the 1978 census provisional data.

37. The 1978 census appears to have been a better census than previous ones in terms of accuracy in enumeration coverage. It will therefore be necessary for the results to be fully analysed and used as inputs in the planning process.

Table 1. Population size and growth rates, 1967 and 1978 by region

Region	Reported population		Growth rate
	1967	1978	1967-1978
Dodoma	709 380	971 921	2.9
Arusha	610 474	928 478	3.9
Kilimanjaro	652 722	902 394	3.0
Tanga	771 060	1 038 592	2.7
Morogoro	682 700	939 190	2.9
Coast	428 041	516 949	1.7
Dar-es-Salaam	356 286	851 522	8.2
Lindi	419 853	527 902	2.1
Mtwara	621 293	771 726	2.0
Ruvuma	395 447	564 113	3.3
Iringa	689 903	922 801	2.7
Mbeya	753 765	1 080 241	3.3
Singida	457 938	614 030	2.7
Tabora	502 068	818 049	4.5
Rukwa	276 091	451 897	4.6
Kigoma	473 443	648 950	2.9
Shinyanga	899 468	1 323 482	3.6
West Lake	658 712	1 009 379	4.0
Mwanza	1 055 883	1 443,418	2.9
Mara	544 125	723 295	2.6
Mainland total	11 958 654	17 048 329	3.2
Zanzibar	190 494	273 365	3.3
Pemba	164 321	205 870	2.1
Zanzibar total	354 815	479 235	2.7
United Republic of Tanzania	12 313 469	17 527 564	3.2

Table 2. Sex ratios by region: 1967 and 1978 censuses

Region	Sex ratio	
	1967	1978
Dodoma	94	94
Arusha	103	104
Kilimanjaro	95	95
Tanga	105	99
Morogoro	98	100
Coast	94	96
Dar-es-Salaam	122	115
Lindi	94	95
Mtwara	95	93
Ruvuma	90	92
Iringa	88	87
Mbeya	90	92
Singida	87	91
Tabora	95	98
Rukma	96	98
Kigoma	84	89
Shinyanga	94	95
West Lake	92	97
Mwanza	99	99
Mara	91	90
Mainland Tanzania	95	96
Zanzibar and Pemba	102	99
United Republic of Tanzania	95	96

Source: 1967 Population Census, Statistics for enumeration areas, Central Statistical Bureau, Dar-es-Salaam, 1967 pp. 1 - 4.

Table 3. Proportion of the population by region, 1978 census

Region	Proportion		
	Under 15	15 - 64	65 and over
Dodoma	46.6	49.3	4.1
Arusha	47.4	49.0	3.6
Kilimanjaro	49.2	46.1	4.7
Tanga	46.7	49.2	4.1
Morogoro	43.8	52.1	4.1
Coast	42.7	50.1	7.3
Dar-es-Salaam	39.1	58.9	2.0
Lindi	41.6	53.2	5.2
Mtwara	41.6	53.7	4.7
Ruvuma	46.5	49.6	3.9
Iringa	49.4	47.5	3.1
Mbeya	46.8	49.5	3.6
Sngida	45.3	49.5	5.2
Tabora	44.4	51.2	4.4
Rukwa	48.5	47.7	3.8
Kigoma	47.6	48.7	3.7
Shinyanga	48.0	48.3	3.7
West Lake	41.7	52.4	5.9
Mwanza	46.9	49.9	3.2
Mara	49.8	46.5	3.7
Mainland Tanzania	46.1	49.8	4.1
Zanzibar and Pemba	48.6	47.0	4.4
United Republic of Tanzania	46.1	49.8	4.4

Table 4 (a) Reported age and sex distribution for mainland Tanzania, 1978 (in percentage)

Age	Total	SEX	
		Male	Female
0 - 4	18.1	18.1	10.1
5 - 9	16.0	16.2	15.8
10 -14	12.0	12.4	11.6
15 -24	17.4	16.7	18.2
25 -34	13.0	12.5	13.6
35 -44	8.9	8.9	8.9
45 -54	6.3	6.4	6.2
55 -64	4.2	4.4	3.9
65 and over	4.1	4.4	3.7
Total	100.0	100.0	100.0

Table 4 (b) Reported age and sex distribution for Zanzibar, 1978 (in percentage)

Age	Total	SEX	
		Male	Female
0 - 4	19.0	18.8	19.2
5 - 9	18.1	17.8	18.3
10 -14	11.5	12.0	11.0
15 -24	17.1	16.4	17.7
25 -34	11.6	11.0	12.2
35 -44	8.1	8.1	8.2
45 -54	6.0	6.3	5.7
55 -64	4.2	4.6	3.8
65 and over	4.4	5.0	3.9
Total	100.0	100.0	100.0

Table 5. Area and density by region 1967 and 1978

Region	Area (km^2)	Density (persons per km^2 1967	Density (persons per km^2 1978
Dar-es-Salaam	1 393	256	611
Pemba	984	167	209
Zanzibar	1 660	115	165
Mwanza	19 683	54	73
Kilimanjaro	13 250	49	68
Mtwara	16 710	37	46
Tanga	26 677	29	39
West Lake	28 456	23	35
Mara	21 760	18	26
Shinyanga	50 760	18	26
Dodoma	41 311	17	23
Mbeya	60 350	12	18
Kigoma	37 040	13	17
Iringa	56 850	12	16
Coast	32 547	13	16
Morogoro	70 624	10	13
Singida	49 350	9	12
Tabora	76 150	7	11
Arusha	82 191	7	11
Ruvuma	63 669	6	9
Lindi	66 040	6	8
Rukwa	68 635	4	7
United Republic of Tanzania	886 090	14	20

Table 6. Population of regional headquarters, 1967 and 1978

Town	Population	
	1967	1978
Dar-es-Salaam	272 821	757 336
Zanzibar	68 490	110 669
Mwanza	34 861	110 611
Tanga	61 058	103 409
Mbeya	12 479	76 606
Morogoro	25 262	61 890
Iringa	21 746	57 182
Arusha	32 452	55 281
Moshi	26 864	52 223
Kigoma	21 369	50 044
Mtwara	20 413	48 510
Dodoma	23 559	45 703
Musoma	15 412	32 658
Singida	9 478	29 258
Sumbawanga	7 456	28 586
Lindi	13 352	27 308
Shinyanga	5 135	21 703
Bukoba	8 141	20 430
Songea	5 430	17 954
Total	706 790	1 774 757

Table 7. Number of rural households in villages, Outside Villages and percentage of which in villages(a)

Region	In villages	Outside villages	Total Number of rural households	Percentage of which in villages
Dodoma	179 443	6 986	106 429	96.3
Arusha	141 379	15 621	157 000	90.1
Kilimanjaro	150 033	2 893	152 926	98.1
Tanga	163 633	18 268	181 901	90.0
Morogoro	160 678	12 930	173 608	92.6
Coast	105 745	5 707	111 452	94.9
Dar-es-Salaam	18 072	314	18 386	98.3
	105 747	638	106 385	99.5
Mtwara	155 659	798	156 457	99.5
Ruvuma	99 398	278	99 676	99.7
Iringa	181 235	2 790	184 025	98.5
Mbeya	191 873	4 850	196 723	97.5
Singida	114 017	5 476	119 493	65.4
Tabora	123 045	14 241	137 286	89.6
Rukwa	85 004	1 499	86 503	98.3
Kigoma	103 487	1 923	105 410	98.2
Shinyanga	208 077	5 457	213 534	97.4
West Lake	213 557	4 245	217 802	98.1
Mwanza	203 650	3 160	206 810	98.5
Mara	103 714	2 389	106 103	97.7
Mainland Tanzania	2 807 546	110 363	2 917 909	96.2

(a) After the Arusha Declaration of 1967, it was decided that people should live in villages together so that it would be easier for the Government to provide the necessary social services. The 1975 village act spelled out very clearly that there were only two types of people, ie. those living in urban areas and those in rural areas, and that those living in rural areas would be living in villages clearly marked in defined boundaries.

Table 8. Projected total fertility rates (TFR), Crude birth rates (CBR) and crude death rates (CDR) 1970 - 1985

Region	1970 - 1975			1975 - 1980			1980 - 1985			1985 - 1990			1990 - 1995		
	TFR	CDR	CDR	TFR	CBR	CDR	TFR	CBR	CDR	TFR	CBR	CDR	TFR	CBR	CDR
Dodoma	6.8	48.5	17.7	6.8	48.0	16.1	6.8	47.2	14.3	6.8	46.8	12.6	6.8	47.9	12.5
Arusha	6.5	48.2	12.4	6.5	47.2	12.2	6.5	45.7	12.0	6.5	45.2	11.9	6.5	45.5	12.0
Kilimanjaro	7.0	48.0	13.8	7.0	50.1	13.7	7.0	49.1	13.1	7.0	47.8	12.7	7.0	46.6	12.5
Tanga	7.2	47.1	14.1	7.2	47.3	12.8	7.2	46.8	12.8	7.2	47.0	12.8	7.2	48.0	12.8
Morogoro	6.0	42.4	17.4	6.1	41.9	16.1	6.2	41.4	14.8	6.3	42.1	13.4	6.4	43.5	13.5
Coast	5.5	34.1	18.2	5.6	35.5	17.0	5.7	36.7	16.0	5.8	39.2	14.7	5.9	40.7	14.6
Dar-es-Salaam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lindi		38.5	14.6		38.5	18.1		38.7	16.6		39.1	14.9		39.5	13.3
Mtwara	5.4	40.0	17.7	5.4	39.1	16.4	5.5	40.0	15.0	5.6	39.3	13.4	5.7	40.3	13.4
Ruvuma	6.4	51.7	17.1	6.5	49.1	15.4	6.5	46.3	13.5	6.5	45.4	11.9	6.5	45.7	12.1
Iringa	7.2	55.4	17.4	7.2	53.5	15.8	7.2	51.3	13.9	7.2	49.9	12.2	7.2	49.9	12.2
Mbeya	6.8	53.9	15.2	6.8	51.3	13.8	6.8	48.1	12.1	6.8	46.4	12.1	6.8	47.2	12.1
Singida	5.8	44.4	23.8	5.9	43.7	21.5	6.0	43.6	19.5	6.1	44.3	17.7	6.2	44.8	16.1
Tabora	5.4	40.9	17.0	5.5	40.4	15.6	5.6	40.0	14.3	5.7	40.1	12.9	5.8	40.8	13.0
Rukwa	6.2	47.4	17.0	6.2	45.9	15.5	6.3	44.3	14.0	6.3	43.6	12.4	6.3	44.0	12.5
Kigoma	5.9	48.2	20.2	6.0	47.5	18.5	6.1	46.7	16.8	6.2	46.4	15.2	6.3	46.1	13.8
Shinyanga	6.4	48.6	16.7	6.5	47.4	15.2	6.5	46.2	13.7	6.5	45.6	12.2	6.5	45.7	12.3
West Lake	6.8	42.9	23.5	6.8	45.5	21.3	6.8	46.9	18.9	6.8	47.3	12.8	6.8	48.0	12,8
Mwanza	6.5	45.7	16.6	6.5	45.1	15.1	6.5	45.6	13.7	6.5	45.7	12.4	6.5	45.7	12.4
Mara	6.7	47.7	16.7	6.7	48.5	15.2	6.7	49.1	13.8	6.7	49.0	12.3	6.7	48.1	12.2
Mainland Tanzania	6.4	43.7	16.8	6.4	43.4	15.6	6.4	42.6	14.3	6.5	42.4	13.2	6.5	42.7	12.8

Source: R.A. Henin et al: 1973 national demographic survey: The demography of Tanzania, Bureau of Statistics and Demographic Unit. Bureau of Resource Assessment and Land Use Planning, University of Dar-es-Salaam, p. 229.

Table 9: Projected total population (in thousands) and proportion under 15 years

Region	1970 - 1975		1975 - 1980		1980 - 1985		1935 - 1990		1990 - 1995	
	Population	Percentage under 15 years	Population	Percentage under 15 years	Population	Percentage under 15 years	Population	Percentage under 15 years	Population	Percentage under 15 years
Dodoma	881	44	1 033	46	1 219	48	1 446	48	1 720	48
Arusha	803	46	957	47	1 134	48	1 339	47	1 585	47
Kilimanjaro	872	43	1 047	46	1 255	48	1 495	48	1 784	48
Tanga	978	44	1 163	46	1 379	48	1 637	48	1 953	48
Morogoro	821	40	932	42	1 064	43	1 228	44	1 426	45
Coast	578	37	631	38	700	38	791	40	902	42
Dar es Salaam	-	-	-	-	-	-	-	-	-	-
Lindi	482	38	534	39	597	40	675	41	770	42
Mtwara	750	39	3 841	41	948	42	1 079	42	1 235	43
Ruvuma	504	45	598	47	704	48	833	47	986	47
Iringa	910	48	1 099	49	1 325	51	1 601	50	1 934	50
Mbeya	982	45	1 185	49	1 419	50	1 687	49	2 011	48
Singida	527	42	589	43	664	43	759	43	876	44
Tabora	597	41	676	42	769	42	882	43	1 014	43
Rukwa	353	44	411	45	478	46	559	46	655	47
Kigoma	567	46	656	46	762	46	890	46	1 046	46
Shinyanga	132	44	1 330	46	1 565	47	1 850	47	2 187	47
West Lake	766	42	864	43	994	45	1 158	46	1 361	47
Mwanza	1 313	45	1 526	45	1 761	46	2 116	47	2 501	47
Mara	700	47	827	48	987	48	1 187	49	1 421	49
Mainland Tanzania	14 817	44	17 256	45	20 156	46	23 661	46	27 870	47

Source: F.A. Henin et al: 1973 national demographic survey: The demographyc of Tanzania, Bureau of Bureau of Statistics and Demographic Unit, Bureau of Resource Assessment and Land Use Planning, University of Dar-es-Salaam, pp. 344 - 402.

Table 10: Percentage of population for selected countries in broad age groups

Country	Proportion Under 15	 15 - 64	 65 & over
United Republic of Tanzania, 1970	46.1	49.8	4.1
Zambia, 1975	46.5	50.9	2.6
Uganda, 1969	46.1	50.0	3.9
Kenya, 1969	48.4	48.0	3.6
Canada, 1974	27.2	64.4	8.4
Argentina, 1974	28.6	63.6	7.8
Brazil, 1974	41.7	55.5	2.3
India, 1974	40.1	56.7	3.2
Japan, 1974	24.4	67.9	7.7
Netherlands, 1974	25.9	63.5	10.6

Source: United Nations Demographic Yearbook, 1975, Table 7, and national figures.

THE RELATIONSHIP BETWEEN POPULATION AND DEVELOPMENT AND ITS APPLICATION TO EMPLOYMENT IN THE UNTED REPUBLIC OF TANZANIA*

INTRODUCTION

1. An underlying theme of the 1970s has been the recognition that development is a multidimensional concept that encompasses not only economic and social aspects of national activity but also those related to population, the use of natural resources and the environment. This is borne out by major themes of several international conferences held in the last decade. Cases in point include the Conference of the Human Environment in Stockholm in 1972; the World Population Conference in Buchares in 1974, the World Food Conference in Rome in 1974; the Conference on Human Settlements in Vancouver in 1976; the Conference on Desertification in Nairobi in 1977 etc.

2. The fact that development is a multifaceted concept can be seen, for instance, in the need to search for causes of apparently technical problems such as desertification, deforestation and soil degradation among such diverse factors as demographic trends, modes of production technology and consumption patterns. It calls, therefore, for the extension of existing development models and strategies to include important interrelationships among population, resources, environment and development.

3. The interrelationships among these variables are by and large very difficult to understand. There is, therefore, need for research to help bring about some understanding of these interrelationships. The purpose of this paper is to present some of the interrelationships between population and development. Subsequently an application will be made to the United Republic of Tanzania on the question of unemployment. On the basis of these discussions, priority areas of research will be identified.

THE EFFECTS OF POPULATION ON ECONOMIC DEVELOPMENT

4. Some aspects of population considered relevant to economic development are population size, population growth rate and age structure. The size of the population in relation to resources raises the issue of the optimum population. Under the best possible conditions, the population is theoretically of the right size to ensure full utilization of resources and thereby maximize the well-being of every individual in the society. Although no society can boast of an optimum population, it is the goal of development planning to gravitate the size of the population (through population growth policy and technological development) towards the optimum point.

5. Perhaps most profound is the effect of the population growth rate on the rate of economic and social development. As Coale and Hoover have argued, the significant feature of population growth is that a

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* Prepared by C.L. Kamuzora

higher rate of population growth implies a higher level of investment needed to achieve a given per capita output, while there is nothing about faster population growth that generates a greater supply of investible resources. 1/ However, it is contended that if the supply of capital is elastic, the greater need for capital caused by more rapid growth may be translated into higher or more certain prospects of profit; then population growth may serve as a stimulus to economic development. But if the supply of capital is inelastic, a higher rate of population growth will tend to force the diversion of investment to duplicate existing facilities, thereby preventing an increase in the capital available per worker. 2/

6. The relationship between population growth and economic development is better illustrated in quntitative terms. Assuming for a certain population, a capital - output ratio 3/ of 3.1, then the net investment required to guarantee nothing lower than the existing standard of living will depend on the growth rate of population. With a 1 per cent annual population growth under this situation, 3 per cent of the national product is required; but if growth rate of population is, say, 3 per cent, the proportion of national product needed for capital formation rises to 9 per cent.

7. The population growth rate also affects the age structure and in consequence the supply of labour and the problem of the dependency burden. Dependants are children below the age of 15 years and those aged 65 years and over; the labour force is therefore the population aged 15-64 years. One could have reservations about these cut-off points particularly in developing countries with largely peasant economies because children start work at an early age and the old work on the farm until they are physically incapacitated.

8. The world situation in 1975 was such that in developed countries the dependency ratio was about 0.6, meaning that one dependant was supported by almost two working people whereas in developing countries it was 0.9, and in the United Republic of Tanzania now it is 1, showing that a dependent was supported virtually by only one working person. The situation is still similar to-day because the age structure of the population does not change rapidly as it depends mainly on changes in fertility.

1/ Goale, A.J. and Hoover, E.M., Population growth and economic development in low-income countries, Princeton. Princeton University Press, New Jersey, 1958, p. 19.

2/ Ibid, p. 20.

3/ The capital output ratio is defined as the ratio of additions to material reproducible capital stock needed to produce an additional unit of output.

9. The dependency burden can be expressed in more everyday phenomena, such as the pressure on goods and services that are produced, for example, food, education and health services etc. Of course these arguments are made on a *ceteris paribus* assumption. Ester Boserup has actually earned esteem by showing that population growth, hence population pressure, makes people invent new labour-intensive techniques that increase total production and avoid potential unemployment. 1/ However the Boserup thesis suffers from two main drawbacks which even make it untenable. First, although they are labour intensive she sees diminishing returns with the new techniques, which means they are uneconomic. This is not however, of universal validity because Bronoson's evidence from China shows the contrary. 2/ Secondly, the hope of developing new techniques with population pressure is optimistic. New techniques do not come automatically[9], but take relatively long periods of research and experimentation. In the meantime population growth continues. That is why a balance in the growth of the factors of production is necessary.

10. It is important to note that population growth is not necessarily a bad thing. In the United Republic of Tanzania the general saying is that the country is empty, which is usually based on the World Bank's 1961 mission that estimated that the Rufiji River Valley alone could feed 20 million people (twice the population size at that time). But this is only the potential. To make the potential become the actual is the crux of the matter. One needs "breathing space" to develop the technology and acquire capital and skilled labour to do that. Otherwise to fill the country now (with babies, not the work force) will only lead to a higher consumption rate of potentially investable resources.

THE EFFECT OF ECONOMIC DEVELOPMENT ON POPULATION

11. The theory of demographic transition provides a valuable framework for analysing the nature of the relationship between economic development and population growth. In its general form the transition theory states that under conditions of predominantly agricultural enterprises and

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1/ Ester Boserup[9], *The Conditions of Agricultural Growth*. London, (Allen and Unwin, 1965). Such pro-population (or pronatalist) arguments are usually given by Samir Amin, "Development strategies and population policies: Underpopulated Africa", UNESCO Seminar on Population Dynamics and Educational Development in Africa. Dakar, Senegal (1971).

2/ Bronson, "Farm labour and the evolution of food production" in Brian Spooner (ed.), Population Growth: *Anthropological implications* Cambridge (Mass.), (MIT Press, 1970), pp. 192-218.

widespread rural dwellings, birth rates tend to be stable at a high level and death rates remain typically high but fluctuating. High birth rates, it is argued, result from social beliefs and customs that emphasize survival prospects under conditions of high mortality. High death rates under such poor conditions tend to fluctuate in consequence of variations in crops, varying incidence of epidemics and the like.

12. According to the transition theory, economic development has the effect of reducing death rates because of the greater regularity of food supply and developments in the area of medical technology. While the causes of death are responding to modernizing factors, in the transition period birth rates remain stable at a high level reflecting a profound social and cultural basis of fertility behaviour. Indeed, modern research has shown that, during the transitional phase when mortality is declining rapidly, fertility tends to rise somewhat thus putting double pressure on the accelerator of population growth. 1/

13. It is in the face of more profound economic development (massive industrialization, urbanization and modernization) that fertility is expected to eventually fall. Continued industrialization, it is argued will lead to gradual obsolescence of age-old social and economic institutions and the emergence of the small family norm. Industrialization, it is thought, will necessarily lead to fundamental changes that have a direct effect on fertility and hence population growth. Such changes include urbanization, erosion of economic and other functions of the family, emancipation of women, increasing emphasis on education, rising cost of bringing up children, and the decline of mortality. 2/ Space does not permit an elaborate critique of the transition principle but suffice it to say that inspite of its limitations which are generally well known, this framework still remains one of the most useful models in the study of economic development and population growth.

14. Education is one of the independent variables built into the model without much elaboration but which has come out as a fundamental factor in modern population change. The expansion of education alone means that more and more children spend time (and more of it) in school instead of helping their parents on the farms and/or businesses and in household chores. 3/ Hence the role of children in the family changes from being economic assets to liabilities, at least as far as their contribution to household production is concerned. One would expect then that on this score the desire for children would diminish as the economy develops.

1/ Durand, J.D., "Demographic transition", International Union for the Scientific Study of Population, Sydney Conference, Australia, August 1967.

2/ Idid.

3/ C.L. Kamuzora (1978), op. cit.

15. The expansion of education for females has a more direct effect on fertility. Females would spend more of their lives in school, hence postponing marriage. This would reduce the time they would spend in marriage exposed to the "risk" of child-bearing. In another direction education of females gives them a high probability of being employed outside the home. This creates a direct conflict between the role of child-bearing and employment. If the incentive or the need to work outweighs that of motherhood, a woman would choose to work at least for a while. This may also mean postponment of marriage or if she marries she may regulate her fertility (abstinence, contraception, etc.) to suit her preferences.

16. The foregoing discussion has shown that population growth and development affect one another in important ways. It is therefore necessary to integrate demographic factors into planning. Interdisciplinary research will help to build realistic economic-demographic-development models on the basis of which the mutual effects of important factors can be observed. That is, sensitivity tests can be made to see how different population trends affect development and how development policies affect population growth. The sections that follow examine the effect of population growth on development with reference to the situation of unemployment in the United Republic of Tanzania.

UNEMPLOYMENT SITUATION IN THE UNITED REPUBLIC OF TANZANIA

17. The labour force in the United Republic of Tanzania has been growing at about 3 percent per annum since 1967(using the 1967 census labour force participation rate of 48 per cent of the total population, 1/ and the 1978 Census). Thus the labour force growth rate was similar to that of population growth and was also higher than the rates projected for the 1965-1980 period of a rapid rise from the 1950-1965 period estimated at 1.5 per cent per annum. 2/ The rate of employment recorded in the 1967 census for the population aged 15 years and over was 4 per cent in the urban and one per cent in the rural areas. 3/ However the urban figure is suspected to be an underestimate, in view of a high rate of rural-urban migration together with the slow expansion

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1/ A.K. Dey and N. Mogil, "Economic characteristics" in B. Egero and R.A. Henin, The Population of Tanzania. Dar-es-Salaam (BRALUP and Bureau of Statistics, 1973), pp. 137.

2/ M.P. Todaro, "Industrialization, unemployment and the urban environment" in W.K. Wohlmuth, Employment creation in developing societies. New York and London (Preager Publishers, 1973), pp. 56.

3/ A.K. Dey and N. Mogil, op. cit., p. 135

of industry in the country and the general situation in Africa. Neighboring Kenya in 1966 had rates of urban unemployment of over 27 per cent for the 20-24 year age group and 17 per cent over all among those aged 15 years and over.1/Hence the situation in the United Republic of Tanzania can be expected to be similar to that of Kenya.

18. A serious problem of unemployment in the United Republic of Tanzania, like in most developing countries, is urban uneployment especially among young adults, arising from the rural exodus into urban centres (rural-urban migration). Sabot's 1971 survey in the United Republic of Tanzania showed that the period of 23 years between the 1948 census and the current survey, the populations of Tanzanian towns multiplied fourfold, or even more. Approximately three quarters of this very rapid expansion of urban population came as a result of migration into towns. 2/ And many migrants, more than anywhere else, went to the capital city of Dar-es-Salaam and established residence on its urban fringes where "Swahili Makuti housing" proliferated and electricity, water, sewage and road systems were inadequate or non-existent. 3/

19. Migration within a country is another population factor apart from growth that has to be considered in planning. Rural-urban migration arises from the lopsided development in education and the concentration of socio-economic services in urban centres. The latter were of course based on the post-World War II model of developing modern urban large-scale industry, but based on imported technology. This approach has faced serious bottlenecks, for example capital, skilled labour, raw materials etc., so that the urban sector has failed to provide employment for the migrants. 4/ Balanced development between urban and rural areas through the provision of necessary infrastructure and amenities and the creation of small-scale industries in rural areas as well as improving agriculture would raise income for the rural population. This would then reduce rural to urban migration.

20. The employment problem in the United Republic of Tanzania goes beyond that observed in urban areas. Although a problem of a different nature, rural areas face, first, seasonal unemployment inherent in the nature of agricultural operations, particularly in areas with marked wet/dry seasons; and second, rural areas face a kind of unemployment

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1/ M.P. Todaro, op. cit.

2/ R.H. Sabot, Urban Migration in Tanzania, University of Dar-es-Salaam mimeo 1972) p. 19.

3/ Ibid., pp 19-20

4/ M.P. Todaro, Internal Migration in Developing Countries, Geneva, I.L.O., 1976.

connected with low productivity, economic unemployment, because returns to raise the standards of living are meagre, which is due to low skills (technology) and lack of capital. The other side of the coin is too many people versus the availability of other factors of production.

21 The foregoing discussion focused on the current situation, and thus is of a static nature. The dynamic complement would be to look at the future, which actually shows how serious the potential unemployment situation might be. There is going to be an increase in the labour force that will have to be provided with employment. This increase arises from two sources. One is from population growth. Even if the population of the United Republic of Tanzania reached replacement level just now in simple terms meaning producing on the average one surviving female and one surviving male child per woman by the time she reaches the end of child-bearing), the population would still grow for the foreseeable future before reaching a stationary state (zero growth). This is because of the child-bearing potential (momentum) already existing in the young age-structure of the population observed earlier. 1/ These are the current children of less than 15 years of age, who account for about half of the total population.

22. The second source of potential unemployment will be the withdrawal of the labour force from the agricultural sector as labour productivity in this section rises, meaning that less and less labour will be needed to produce a given output. In more simple terms less labour will be required to produce the agricultural goods needed by the entire population. For example, in a developed country like the United States with the highest agricultural productivity per capita in the world, less than six per cent of the population is engaged in agricultural production, providing not only for the United States population but for a significant number of people in the rest of the world. The United Republic of Tanzania has 95 per cent of the population engaged in agriculture and can hardly feed its population. Where to put these inevitably increasing numbers is therefore a challenge.

SUMMARY AND CONCLUSIONS

23. It has been shown that population and development affect one another in important ways. Pbpulation growth generates the labour force used to effect development. Development itself affects population growth through its effects on fertility and mortality levels. Therefore socio-economic planning alone is not enough if population factors are not taken into account; nor can one rightly speak of population planning without paying regard to socio-economic development factors.

1/ Population Council, Country Profiles: Tanzania. New York (1974). for the theory see T. Frejka, The Future of Population Growth. New York (John Willey and Sons, 1973).

24. Information on the exact relationships of population and development and personnel to do such analysis are still lacking. Data collection and analysis and training of indigenous personnel should receive top priority. Africans are at the cross roads on the question of population and development: efforts will not be in vain if serious and realistic action is taken now. The following are the suggested priority areas for research.

(a) The carrying capacity of the land and associated ecosystems;

(b) Soil degradation, deforestation and desertification, and use of the general environment;

(c) Resource utilization and disparities in levels of income;

(d) Integrated rural development and employment generation;

(e) Industrialization, particularly small enterprises (small-scale industry) and manufacturing in rural areas;

(f) Rural-urban migration and general spatial distribution of the population

THE PLANNING PROCESS AND ITS ORGANIZATION IN THE UNITED REPUBLIC OF TANZANIA*

INTRODUCTION

1. An attempt is made in this paper to present a critical evaluation of the organization and process of planning for social and economic development in the United Republic of Tanzania. The paper begins with a consideration of the concept of planning in national development. The Tanzanian national experience in development planning in colonial days and since independence is then discussed. The structure of the planning process is assessed critically and the relationship between certain government policies and planning processes is evaluated. Finally, planning problems are highlighted and strategies for a more effective implementation of government plans are suggested in the light of past experience and changing circumstances. The major issues are summarized in the concluding section.

THE CONCEPT OF PLANNING

2. Planning is probably one of the most popular concepts in use among social scientists. It is also the most difficult to verify scientifically since by definition it deals with the future which cannot be observed in the present. Since it is subject to the uncertain future and the unpredictable behaviour of human beings, it is at best, a kind of speculation, which planners translate into statements of intention, into numbers and into diagrams dignified by such labels as forecasts and projections. It involves visualizing the future and influencing present situations and events in such manner that the visualized situation may be realized.

3. Since the past and the present determine the future, planning must build on them. But despite the proven validity of past and present phenomena, planning remains informed guesswork and the further plans are projected into the future the more difficult it is to be certain of their outcome. Yet, planning accepted as a legitimate occupation of social scientists in Governments and para-governmental agencies because it provides a single scenario or set of scenarios for the entire society which can not be developed by individuals or small groups of people planning identifies and clarifies the rates and directions of economic and social change and attempts to influence them through the allocation of material and non-material resources, it makes possible increased division of responsibility and specialization in the efforts of all economic and social units to achieve national goals. 1/

1/ Moris J.R., "The Future Pattern of Tanzania Development", Professorial Lecture, University of Dar es Salaam, Faculty of Agriculture, Morogoro, 11 July 1979.

* Prepared by N.N.P. Shimwela

4. The validity of planning lies in the correct interpretation of observed reality and the skilful and creative manipulation of events in the present in order to achieve the results in the future. This requires imaginative minds skilled in many areas; the most appropriate vertical as well as horizontal institutional relationships; and the most appropriate processes and procedures of action, reaction, feedback and control. The design, creation and constant improvement of such procedures must be an integral part of the planning process. Without adequately skilled technicians and an appropriate institutional framework for its effective administration, planning becomes an exercise in futility.

EVOLUTION OF THE PLANNING AGENCIES AND PROCESSES

5. The United Republic of Tanzania inherited from the colonial administration two planning agencies. In the capital, Dar es Salaam, was a committee loosely constituted of Cabinet Ministers of the spending departments. This committee had been formed in 1957 to integrate social investment proposals with the capital works programme of 1956. After the constitutional changes of 1959 and 1960, the committee was structured. Its chairmanship was transferred from the Prime Minister to the Minister for Finance and an Economic Section was created in the Treasury to provide a secretariat. 1/ Outside Dar es Salaam, representatives of the central spending departments constituted provincial and district teams at their respective levels, under the overall charge of the Civil Service provincial and district Commissioners. The Commissioners coordinated the activities of local authorities as well as those of the central agencies represented in their areas of jurisdiction. While the local authorities were answerable to the Commissioners, the central agencies were accountable to their headquarters in Dar es Salaam. 2/

6. After independence in December 1961, the attention of the new Government was directed towards positive development and the creation of appropriate agencies to promote it. In March 1962, the ministerial committee was again restructured and renamed the Economic Development Commission. Its chairmanship reverted to the Prime Minister, while the Treasury retained its secretariat headed by a Director who held the rank, Principal Secretary. In March 1963, the Commission was dissolved and a new Ministry of Development and Planning was created in its stead, under a Ministry of State within the President's Office. The Director

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1/ Shimwela, N.N.P., "Development Planning in Colonial Tanzania", Mimeo deposited in DEVPLAN Library, Dar es Salaam (Dec. 1974) 170 pp.

2/ Dryden, S., Local Administration in Tanzania, East African Publishing House, Nairobi, 1968, Chapter 1.

was retained as its technical head but the Ministry was now detached from the Treasury. In July 1964, the Ministry was abolished and a directorate of development and planning formed, which consisted of three Ministers of State holding equal Cabinet rank. In October 1965, the directorate was dissolved and a new Ministry of Economic Affairs and Development Planning (DEVPLAN) was created. Thus, during the first four years of independence the central planning agency underwent many changes. 1/

7. At the regional level there were equally frequent reforms. In 1962, the Civil Service district and provincial Commissioners were replaced by political area and regional commissioners respectively, while their colonial teams were reorganized into district and regional development committees. The local authorities were also reorganized: tribal chiefdoms were abolished, representative councils were established. Village areas were redefined and put under the control of Civil Service executive officers. Elected village development committees replaced the colonial committees and were responsible for planning and supervising the execution of nation-building self-help programmes. With the adoption of the one-party State in 1965, Party leaders assumed positions of prominence within rural planning agencies. For instance, the cell system was introduced by the Party in 1965; the village was replaced by the ward in the Party organizational structure and, the Party became more closely involved in all development activities. These developments occassioned fundamental changes in the control system and supervisory relationships at all levels of planning in the regions. 2/

8. Up to this point the building of planning institutions and processes had been effected without any clear sense of purpose or direction. The United Republic of Tanzania was still searching for a positive development strategy within the inherited colonial management system. The disappointing experience of the first five years of independence influenced the country's leadership, which sought to articulate an alternative ideology. By early 1967, it was possible to set down guiding principles for the United Republic of Tanzania's development. In the Arusha Declaration the country committed itself to socialism and an economic, social and cultural programme was spelt out to carry out this commitment. Subsequently, all planning and the institutional reforms associated with it were directed towards the building of a democratic socialist State. The importance of the Arusha Declaration for planning is that it provided different social and economic development objectives, increased the importance of planning as a tool of economic and social management and subsequently necessitated a series of changes in the way planning was organized and carried out, culminating in the present system.

1/ Shimwela, N.N.P., "Towards DEVPLAN", mimeo 30 pp; Dar es Salaam, November 1979.

2/ See for instance, Stanley, D., op. cit.; Katherine L., "The TANU ten-house cell system" in Socialism in Tanzania, (EDS: L. Cliffee and J.S.Saul) Vol. 1 Politics EAPH Nairobi, 1972.

9. The Declaration had particularly far-reaching repercussions for rural development. In mid-1969, the President invited a team of experts under the leadership of Professor Cranford Pratt to examine the possibility of decentralizing the Government for more effective management of rural development. As a follow-up to the team's report, the Government invited the firm of Messrs. McKinsey & Company, Inc. to examine the Government's planning machinery, identify bottlenecks in the administration and implementation of the development programme and recommend solutions that would take into account the existing manpower problems at all levels. McKinsey began the assignment in May 1970. After numerous meetings, missions, interviews, and intensive discussions with government officials had been held a final report was produced for the consideration of the Cabinet in November 1971. The main conclusion of the company was that while the United Republic of Tanzania's development objectives had been clearly formulated by the Government, operations were not geared towards their achievement. 1/ To rectify that weakness, the company made four broad recommendations:

(a) The regions and districts should be given greater responsibility for planning and implementing development programmes and their management capacities should be enhanced accordingly;

(b) The central organization should be strengthened by situating the planning function in the President's Office; this would provide the necessary coordinated direction and control of the rural development programme. Other development Ministries should also be reformed so that the technical aspects of rural development relevant to their sectors might be better coordinated;

(c) The participation of the people in rural development should be enhanced by the reorganization of existing institutions and committees and the role of the Party and the cooperative movement in initiating and coordinating rural development efforts should be increased;

(d) The institutional relationships between and amongst the national and regional agencies should ensure that all development organizations will work together for the same goal through a clearly defined system of information management.

1/ M/s McKinsey & Company Inc. Achieving the Objectives of the Arusha Declaration - Managing Rural Development, May 1971.

10. The Cabinet accepted most of the consultants' recommendations but decided that DEVPLAN, the Ministry of Economic Affairs and Development Planning and MAENDELEO, the Ministry of Regional Administration and Rural Development, should remain as they were, pending recommendations on the reorganization of other Ministries. Technical Ministries would provide advice to regions only through MAENDELEO, whose Minister would be accountable to Parliament in all matters relating to the regions. The existing local Governments would be merged into the new regional administration.

11. McKinsey had also worked out a programme to implement proposals for decentralization. After the Cabinet had approved the major recommendations, the President set up an implementation committee to see that the Cabinet decision was carried out according to schedule. In the meantime, the necessary pieces of legislation were prepared; the necessary personnel were recruited, trained and posted to their respective stations; detailed guidelines of thier responsibilities and procedures of operation were prepared; the necessary support facilities, including office space, vehicles, stationery and other utilities were procured; the political leadership and public media were mobilized to explain to the people the Government's intended decentralization and the benefits to be derived there from. By 1 July 1972, everything was in place and the most radical administrative reform of the executive branch since independence had been accomplished.

12. McKinsey then continued with studies into the restructuring of other central Ministries, including DEVPLAN and the Treasury. The firm's final report on the latter was produced in December 1973, and that on the former in November 1974. 1/ It is significant that they did not recommend a merger of the two Ministries but rather a streamlining of their activities and strengthening of their technical capacities. The National Institute of Productivity (NIP) was asked by the President's Office to examine critically the McKinsey reports on the two agencies. NIP felt that there were areas of overlap in the planning and financing of national development projects and subsequently recommended that these functions of the two Ministries should be combined and carried out by a single Ministry for Finance and Planning. 2/ Upon that recommendation DEVPLAN was dissolved and the Ministry for Finance and Planning created. Five years later, in January 1980, the two functions were separated again with the creation of the present Ministry of Planning and Economic Affairs which retains the name DEVPLAN.

1/ McKinsey & Company Inc. The Ministry of Finance: Reorganizing the Treasury to Focus on its Major Responsibilities, December 1973; and Reorganizing DEVPLAN to Manage Development Planning under Decentralization, November 1974.

2/ National Institute for Productivity Merging the Ministry of Finance and the Ministry of Economic Affairs and Development Planning to Manage National Economic Development, Confidential Report for the Office of the President, October 1975, Dar es Salaam.

13. This background serves to highlight three important points. First of all, the way in which planning is currently organized and carried out in the United Republic of Tanzania is the product of a long learning process and relentless efforts to evolve an appropriate operational framework for this aspect of development administration. Secondly, as the machinery and processes that are about to be examined are not static, there is a risk of being out of date. Thirdly, this background sheds some light on the salient present and future problems which will be dealt with in the conclusion to this paper.

STRUCTURE OF THE PLANNING MACHINERY

14. The present planning machinery and processes in the United Republic of Tanzania are basically those recommended by McKinsey, although a few modifications have been made as the situation demanded. At the centre of this machinery is the Ministry of Planning and Economic Affairs in the Office of the Vice-President. It should be noted that the Vice-President of the United Republic of Tanzania is also chairman of the Party's Standing Committee for Development Planning. Presumably, this is to ensure maximum co-ordination and harmonization of Party policies with development and planning objectives and strategies. The Ministry was formed only in January 1980. There are currently seven technical divisions: National Economic Policy Division for economic analysis, research and policy, financial planning and documentation; Sectoral Planning Division for coordination and Supervision of sectoral development programmes; Budgeting, Programming and Reporting Division for developing budget techniques, following up as well as reporting on the budget performance of the development programme; Private Sector Monitoring Division for monitoring the performance and coordinating the activities of this important component of the economy; International Economic Cooperation Division to coordinate foreign aid policy; Science and Technology Unit, to advise on the application of science and technology to development; and, Central Bureau of Statistics to perform its traditional task of gathering, analysis, storage and dissemination of social and economic data for planning. In addition, there is the Division of manpower development and administration which provides supporting services in respect of establishment and finance and a small unit to provide secretariat services to the Economic Committee of the Cabinet".

15. The Macro-economic Planning Division carries out macro-economic and social analyses, initiates policy and provides the national framework for long-, medium- and short-term planning. It is divided into three main sections. The first deals with macro-aggregates planning, which includes preparing guidelines and estimating resource requirements for short-, medium- and long-term planning, monitoring over-all economic and social growth, and preparing economic surveys and mid-plan reviews. The second section deals with financial planning: monetary and credit policy, financial resource mobilization, public debt, balance-of-payments movements, etc.

The third section is responsible for income, prices and productivity policy and planning in the areas of employment, consumption, parastatal performance, etc. The Sectoral Division specializes in the preparation, analysis, direction and control of sectoral policies and programmes. It is divided into sections corresponding to such sectors as agriculture, industry, health, natural resources, transport, trade, housing, etc., also roughly correspond to areas of ministerial responsibility. The Development Budgeting Division is responsible for the allocation and reallocation of capital resources to sectors, Ministries and Projects. The Project Implementation and Monitoring Division is responsible for the follow-up of the physical implementation of major projects, including on-site inspection, and for the preparation of progress reports. These last two divisions work closely together so that the control of a plan is effectively co-ordinated financially (by the former) as well as physically (by the latter).

16. In most of the development Ministries there are planning units responsible for the preparation, processing and supervision of the execution of their respective ministerial programmes. Many of these Ministries support their own investing parastatals. The ministerial planning unit links them with the Ministry concerned and with DEVPLAN. A National Planning Commission, established by an Act of Parliament in 1972, also participates in the formulation of national medium- and long-term plans for economic, commercial, industrial and social development. The Commission is composed of all members of Parliament, under the chairmanship of the Prime Minister. The Minister for Planning and Economic Affairs is the Deputy Chairman and his Principal Secretary is Secretary to the Commission. Working parties of the Commission are set up by the Chairman to deal with specific areas. At least half of the members of the working parties are members of the Commission, the rest are appointed on the basis of their technical skills and capacity to make a useful contribution to the work of the party. Every decision of the Commission must be communicated to the Government and the Party. 1/

17. At the Central Government level, the Prime Minister's Office is responsible for rural development. In every administrative region, there is a government department called the Regional Directorate headed by a Development Director (RDD) whose authority is roughly equal to that of a Principal Secretary. The RDD is assisted by two principal advisors: the Regional Planning Officer and the Regional Manpower Management Officer. The first is responsible for planning and the second for administration. Answering to the RDD is a management team of functional Officers composed of the regional heads of all the decentralized Ministries. The RDD is related to the political Regional Commissioner in the same way that a Principal Secretary is related to his Minister. This structure is repeated at the district levels where each District Development Director (DDD) has the same relationship to the Regional Development Director as the ministerial

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1/ United Republic of Tanzania: An Act to Establish a Planning Commission. Act. No. 28 of 1972 Government Printer, Dar es Salaam divisional head has to the Principal Secretary. Likewise, the District Planning Officer and the District Manpower Management Officer are the chief assistants to the DDD; through them he co-ordinates the functions of the technical functional officers. Both the Regional and the District Directorates are departments of the central Government. They are answerable to the Principal Secretary in the Prime Minister's office who co-ordinates their activities at the national level.

18. The Decentralization Act of 1972 abolished the existing forms of local government and in their place established District Development Councils. These are executive bodies in corporated under the chairmanship of the District Party Chairman and having as their secretary the District Development Director. The Act stipulates further that every Council shall have an advisory technical District Development and Planning Committee (DDPC) of which the Area Commissioner shall be chairman and the DDD its secretary. In addition to the district Party Chairman, the district MP and not less than ten members elected by the Council, all the district staff and functional officers are also members of this Committee, whose function is the formulation of projects and programmes for consideration by the Council and the supervision of their implementation as approved by the Council. The Council itself bears the final responsibility for the planning and implementation of all development projects and programmes within the district.

19. The Act also established a Regional Development Committee (RDC) for each region, to be chaired by the Regional Commissioner. The RDD is Secretary of this Committee whose membership includes the Regional Party Chairman, all District Party Chairmen and Secretaries, all DDDs and all MPs from within the region. Although the regional staff and functional officers attend RDC meetings, they are not entitled to vote. The Committee itself, unlike the District Development Council, has neither corporate status nor executive powers. It simply advises the District Development Councils regarding the co-ordination of their programmes. It can also initiate and implement its own projects at the regional rather than the district level. [1]

20. Although the central government administration has been decentralized only as far as the district levels, there are other agencies further below which constitute the primary democratic planning fora. Every registered village is divided into ten household units known as cells, each of which elects its own leader. Together the cell leaders constitute a Village Council which is a legitimate Government having full executive powers and responsibility for the day-to-day administration of all village affairs.

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[1] United Republic of Tanzania, Decentralization of Government Administration (Interim Provisions) 1972. Act No. 27 of 1972, Government Printer, Dar es Salaam, 1972.

The Village Council, whose chairman is also the elected chairman of the village's Party branch, is accountable only to the village Assembly, which consists of all residents of the village who are at least 18 years old. Its functions include the planning and co-ordination of village activities for the economic and social development of its residents. The law requires that it should have, inter-alia, a standing finance and planning committee to prepare and supervise the execution of all village projects. 1/

OPERATION OF THE SYSTEM

21. Figure 1 contains a diagram of the planning organization. At the grassroots level project conception occurs in the village assembly where residents discuss their problems and development needs. The Village Finance and Planning Committee notes the requests of the villagers and advises them on the village's financial and other capacity to meet them. At this point, the viability of each project is considered so that the Committee may advise the Council whether or not requests should be made to the District Development Council for financial and material assistance. After this initial screening, all the accepted village requests are gathered together in project form and submitted for the consideration of the Village Council. The Council discusses the proposals and approves a village programme that includes some projects requiring external assistance and some that do not. Projects not requiring outside assistance are then launched using the village's own financial, human and material resources. It is the Finance and Planning Committee, on behalf of the Council,which is responsible for seeing that the execution proceeds smoothly.

22. For projects requiring assistance from outside the village, the Council presents its programme to the district. Here the individual projects from all villages in the district are separated by sector and given to the appropriate departmental experts of the District Management Team for closer evaluation. The functional officers then meet under the expert co-ordination of the District Planning Office to combine viable projects into a draft district development plan for the consideration of the DDPC. Often the functional officers have their own departmental projects which they include in the draft. As the DDPC is aware of the annual plan guidelines and the five-year plan, it is in a position to harmonize the proposed district programme with the national policy and financial guidelines as issued by the PMO and by DEVPLAN. After consideration by the DPCC, the draft is submitted to the District Development Council for further discussion and final approval. Before being forwarded to the RDC, it must be vetted by the Party District Executive Committee. At each of these stages, the original proposals may be modified until a final draft is agreed upon.

1/ United Republic of Tanzania: Villages and Ujamaa Villages (Registration, Designation and Administration) Act., 1975, Government Printer, Dar es Salaam, 1972.

23. The draft district plans are sent to the Region through the RDD's Office. As at the district level, the proposed programmes are distributed to the members of the Regional Management Team for each to advise on projects relevant to his operational area, under the co-ordination of the Regional Planning Office. The most important tasks of the regional authorities at this stage include reconciling conflicting district objectives by combining or eliminating some projects and fitting the district programmes within the budgetary limits set for the region by the Prime Minister's Office. Projects are ranked according to priority and their financial, material and other aspects checked for consistency before a regional draft plan is put together for the consideration of the RDC. Once the plan is approved with or without amendments, it must be endorsed by the Regional Executive Committee of the Party. Only then is a final version prepared for submission to the Prime Minister's Office by the RDD. The Prime Minister's Office incorporates the proposals of all the regions into programme for the whole nation. This is submitted to the Ministry of Planning and Economic Affairs for discussion.

24. National projects have many origins. They may be suggested by Members of Parliament, domestic and foreign political events, or by staff members of the Ministries and parastatals. National Projects are usually too big or too important to be handled by one region or district. Often they are so large and so complex that they require foreign financing and expertise in their technical evaluation, design and execution. Regardless of their origin or size, all are co-ordinated at the ministrial level by the respective planning units. Each unit combines all the costed project proposals in a single draft ministerial programme that must be approved by DEVPLAN.

25. The discussions held during March and April of every year are a series of tough bargaining and negotiation sessions centring primarily on financial allocations. The ministerial team usually consists of the staff of the Planning Unit and experts from the relevant parastatals, including economists and accountants.. These meet with officials of the relevant sections of the Sectoral Division of DEVPLAN who will have been briefed on maximum allocations to each parastatal and each ministry. While Ministries come with overestimates in the hope of receiving funds not too far below their actual needs, DEVPLAN usually starts with conservative figures in the opposite aim. The final allocations are usually a compromise between the two extremes. Often, however, the two parties fail to agree on important issues; at this point, the matter is taken up by the Principal Secretaries and the Ministers concerned. In the event of disagreement even at that level, the relevant Ministry appeals to ECC for a final ruling.

26. When the budget discussions have been concluded the Ministry of Planning and Economic Affairs, prepares a draft national that includes the unresolved issues and submits it for discussion by the Economic Committee of the Cabinet. At this time the sectoral Ministers make **their** final pleas and appeals. After it has been discussed by EEC, the draft looks very different. It is then resubmitted to DEVPLAN so that the necessary

reallocations of funds and other adjustments decided by the ECC can be made At this stage more consultations with the affected Ministries take place until a final version is ready to be submitted to Parliament.

27. The National Assembly has a Standing Finance Committee which scrutinizes the draft plan before it is submitted to the entire house. This Committee has the power to ask any Ministry to provide explanations of the past and projected performance of any projects in the draft plan. Invariably, all the submissions are approved without changes. Then each Minister presents his estimates to Parliament during its annual budget session. The regional programme is presented and defended by the Prime Minister; the programmes of the parastatals are presented and defended by the Ministers of the respective parent Ministries. Finally, Parliament discusses and approves the draft plan and its budget. That approval authorizes the spending Ministries to begin implementation of approved projects while authorizing the Treasury to release funds for that purpose.

28. The timing of these events is an important aspect of the planning cycle. The first task in the preparation of the annual plan is the carrying out by the Ministry of Planning and Economic Affairs of a study comparing the ending year's economic performance - national income, capital formation, production, prices, employment, incomes, balance-of-payments, finance and credit, etc. - with the last plan targets. This analysis enables the Ministry to understand the relative performances of the different sectors, their problems and prospects, and provides a basis for the alteration of policies, priorities and strategies. The central planners then estimate needs in terms of domestic and external resources and suggest tentative sectoral allocations for the following year. Ministries and regions bring in their current project implementation reports which enable DEVPLAN to update its information. By November - December, it is in a position to set out broad guidelines for the Ministries and parastatals to follow in the preparation of the following year's plan. As the Ministry of Planning and Economic Affairs goes through the above exercise, the Prime Minister's Office conducts a similar exercise for the regions.

29. In January and February, all Ministries, parastatals and regions are busy preparing the following year's programmes and processing them in the manner described above. In March, they submit their project information forms and supporting documents to the Ministry of Planning and Economic Affairs and to the Prime Minister's Office. Subsequently, the budget discussions are initiated with representatives of every Ministry and region. By mid-May all the technical discussions will have ended and a draft annual plan will have been prepared for the ECC, which normally meets in the second half of May. Subsequent adjustments take about two to three weeks. Then the draft plan is printed ready for discussion by Parliament in mid-June, so that it is ready for launching at the beginning of the new fiscal year on the 1st of July.

30. The preparation of the medium- and long-term plans does not follow this cycle. The broad development objectives of the country are spelled out by the Party in its various policy statements. The sectoral Ministries translate these policies into tentative programmes within the limits of the financial and material resource constraints projected by the Ministries of Finance and Planning. Those programme proposals in whose formulation the planning Ministry is fully involved then become the starting point for discussion by the sectoral parties of the National Planning Commission. The preparatory work for the five-year plan takes from two to three years. It involves many technical consultations, discussions and meetings at all levels of decision making in both the Party and the Government. Its timetable is prepared well in advance by the secretariat and has nothing to do with the annual planning cycle.

PROBLEMS AND RECOMMENDATIONS

31. The planning organization and processes described above are not free from problems. A recurrent problem in central planning and organization is the position of the Treasury vis-a-vis the planning agency. Traditionally the former had more influence in the formulation of the economic policy because of the budget instrument at its disposal. The Treasury, however, is excessively conservative and short-term in its operational perspective. This outlook is not compatible with the foresight, broadmindedness and more liberal attitude towards spending which are implied by effective planning.

32. The power of the purse-strings implicit in the budget tends to weaken the effect of all other instruments of economic management. When a central planning agency is deprived of it, that agency to be come subservient to the Treasury and cannot effectively control the execution of the national plan. This was clearly illustrated between July 1965 and July 1966 and after July 1969 when responsibility for development budgeting was taken away from DEVPLAN and assigned to the Treasury. The combining of the two offices between October 1975 and January 1980 does not seem to have solved this problem. On the contrary, it rendered other means of control less effective. The Finance Department of the Ministry was certainly much more powerful than the Planning Department, which tried to use those other means. The result was a lack of strong central direction as all the planners were unavoidably imbued with the Treasury mentality and way of doing things. They became involved in solving short-term problems, which should have been the responsibility of the Treasury and other operational Ministries. They tended to look at every problem in financial terms, losing sight of broader policy perspectives. In short, effective planning tended to give way to crisis management.

33. However, the issue is more complex . The absence of central direction is partly attributable to the technical weakness of the Planning Ministry itself. There is no clear appreciation within the Ministry of the crucial role of planning. There is neither a strong sense of direction nor an exact understanding of how this instrument can be used in the management of the economy. If planners do not clearly understand their role, they cannot easily play that role. The complexity of the social and economic problems that planning attempts to solve demands not only a thorough understanding of those problems but also the highest levels of competence on the part of those entrusted with that responsibility. Academic qualifications are not enough. Years of devoted learning by doing are the surest means of cultivating the relevant technical capacity. Such a mix of skills had been gradually accumulated over the ten years of DEVPLAN's life and were dissipated by its dissolution in 1975.

34. While reinstitution of DEVPLAN in early 1980 has not solved all these problems it has at least provided the Government with a potent institution on which to depend for guidance in the area of planning. As already mentioned, planning previously focused primarily on the budget. For all practical purposes, Ministries, parastatals and regions dealt with the Treasury as a finance rather than a planning Ministry. It is hoped that the resurrection of DEVPLAN with increased powers and responsibilities will restore planning to its proper position in the management of development.

35. The existing National Planning Commission is a political body without executive powers. It does not meet regularly to review the performance of the five-year plan. Its chairman is not a full-time officer; he is the Prime Minister, one of the busiest Ministers of the Cabinet. Very few members of the Commission have a grasp of the technical issues involved in planning. Therefore, the deliberations of the Commission tend to be dominated by the working parties' technical experts. An effective executive Commission should consist of three or four top calibre planners of the most senior standing , one of whom would be chairman. It should have the power to override the decisions of any other agency in planning matters. It should be serviced by a strong technical secretariat under the deirection of an individual administrator whose rank would be higher than Principal Secretary of a Ministry. The secretariat should be divided into bureaux and sections in such a way that every sector of the economy would be handled effectively in terms of data collection, analysis, projections, direction and control. In other words, it should have the kind of technical capacity that is wanting in present secretariat.

36. The Commission should have supra-ministerial powers, including the ability to call to account, direct and see to the compliance of any central or regional agency regarding the implementation of plans. It should be reponsible for not only the central direction and control of planning but also the collection, storage and dissemination of all statistical and non-statistical information. It should train and place planning personnel and assist in the development of the planning capacity of other institutions. If an executive commission should be formed, then the present Ministry of Planning and Economic Affairs would with all its technical departments, constitute the secretariat of the Commission. Instead of being headed by the Minister, it would be headed by this team of Commissioners and the Principal Secretary would be replaced by the more powerful technical head referred to above.

37. The problem of inadequate technical competence affects the entire planning system. Ministerial planning units are ill-equipped to handle the complicated preparation, co-ordination and supervision of the execution of their programmes. Regional and district planning offices suffer from the same problems. Many of them are staffed with officers who have no economic background. Even when officers with relevant training can be found, there are not enough of them or their skills are not adequate to handle the job satisfactorily. The problem is even more acute at the village level, not only in terms of the peasants' capacity to plan but also in terms of their general comprehension of the development problem and national policies and their access to government bureaucratic machinery. The decentralization of Government in 1975 involved a partial devolution of powers and responsibilities to lower levels but did not involve a simplification of them vis-a-vis the peasant. Thus, while the machinery has been brought physically nearer to the people, it is no more accessible to them than before. The same bureaucracy has simply been consolidated at the district and regional levels.

38. Because of these weaknesses in the planning system at the ministerial, regional and district levels, project write-ups lack the analytical qualities required for effective planning. As at the centre, more attention is paid to the budgetary aspects of the projects. There is no short cut to the solution of this problem other than recruiting planning economists selectively, training them both on and off the job and employing them in posts where they will be most effective.

39. Nevertheless, the efficiency of even the most qualified planner depends on the quality of his professional tools and the support facilities at his disposal. The United Republic of Tanzania's biggest planning problems include the unavailability and poor quality of basic information on production, distribution, consumption, resource potential, population patterns, etc. The collection, storage and dissemination of such information is hampered not only by the vastness of the country but also by the low levels of literacy, poor transport and communication facilities, insufficient data processing and storage equipment and other constraints common to developing countries. Even working conditions can be frustrating.

Unreliable transport to and from work, poor residential housing, congested office space, poor typing and reproduction facilities, poor filing and registry systems and a host of other administrative problems make concentration difficult and lead to inordinate delays which can hinder effective planning.

40. The more general problems of organizing for planning in the United Republic of Tanzania relate to economic and cultural dependence. According to the 1978 census, 87.6 per cent of all Tanzanians are based in rural areas. The majority of them are subsistence farmers. They operate at such a low technological level that production is highly vulnerable to the vagaries or weather, vermin and pests. The few farmers who produce any surplus at all are engaged predominantly in growing non-food crops for export.

41. Industry contributes less than 10 per cent to GDP so that the country is heavily dependent on external sources for the supply of manufactured consumer, intermediate and capital goods. Since the terms of international trade operate in favour of the industrialized countries, the export earnings of the United Republic of Tanzania cover only a very small and diminishing fraction of the country's foreign exchange requirements. As a result, the country must depend heavily on foreign loans and grants to finance its development investments. For instance, while in 1968-1969 external resources constituted only 26.7 per cent of total development income, ten years later that proportion had risen to 66.4 per cent. Planning is very uncertain, when a strategic sector such as agriculture is so heavily dependent upon climatic conditions and when the domestic resource gap fosters dependence on foreign resources for the financing of development.

42. The country's limited capacity to generate revenue for capital investment is also reflected at other levels of Government. In spite of the taxing powers delegated to the urban and village authorities, for instance, none of them can raise sufficient funds to finance any sizeable project. Therefore, they turn increasingly to the central Government for subsidies and subject themselves to inevitable Treasury controls aimed at ensuring proper use of those funds. So long as these subnational agencies continue to depend on the central Government for financial and technical support, their autonomy is reduced and the purpose of decentralization is partly defeated.

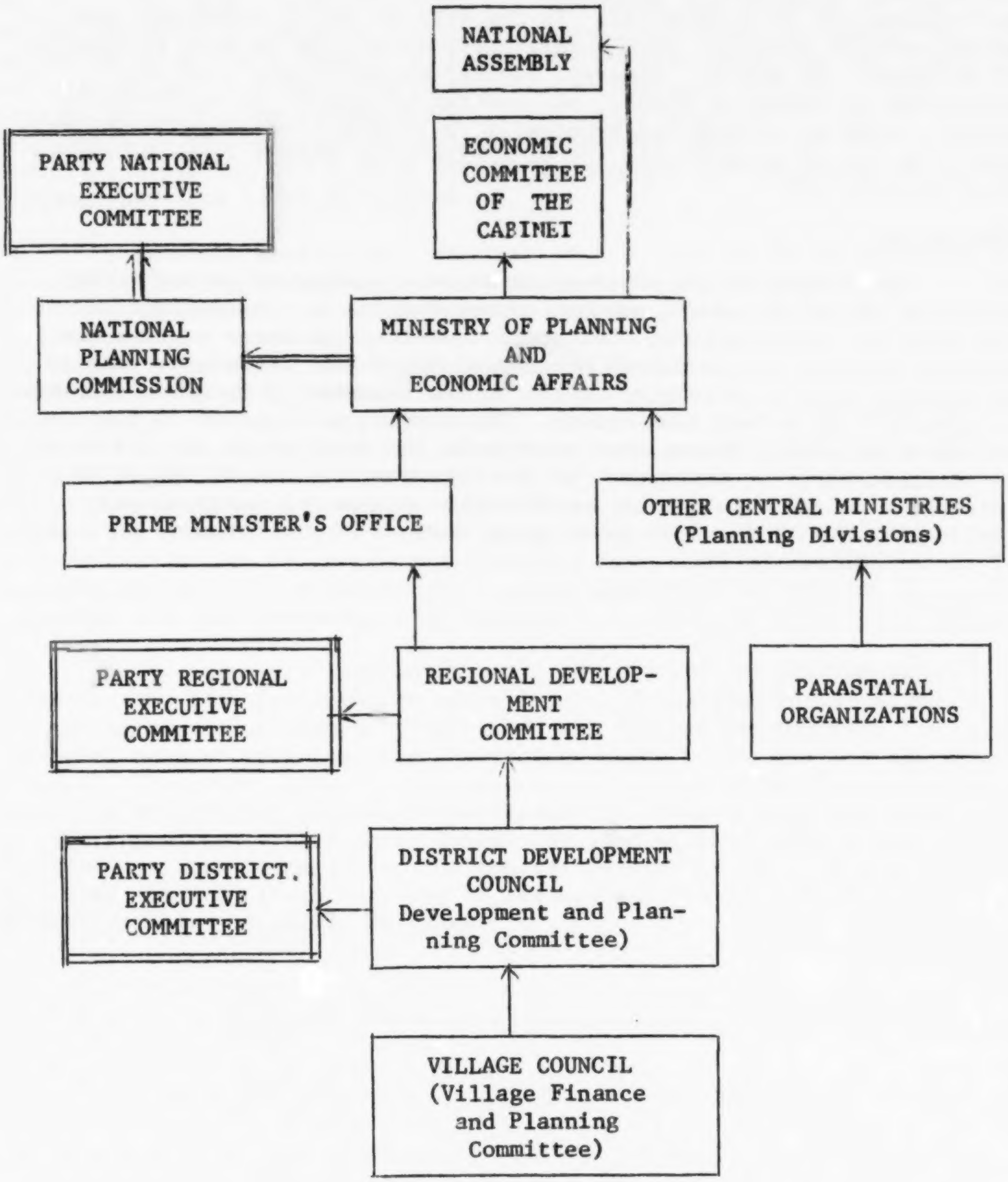
43. In order to ensure that best use is made of resources, adequate mechanisms for a periodic evaluation of programme performance must be built into the plan proposal at all levels of Government. For how can we be sure that a particular means recommended by planners to achieve a certain goal is adequate? This also calls for a clear operational definition of development targets against which programme performance are to be measured. In the area of social investment and social welfare services, such quantitative values may be very difficult, if necessary, to derive. However, capital projects involving huge investment of resources should, as a matter of policy, be subjected to target planning, costing and eventually, a rigorous cost-benefit analysis. Only then can we be sure that the next plan will benefit from the errors of a previous one.

CONCLUSION

44. The organization of planning is only a means to an end - the provision of the framework and procedures for the best management of the economy. It is part and parcel of the wider challenge to overcome underdevelopment in the United Republic of Tanzania. Admittedly this is an enormous task in a country at the United Republic of Tanzania's level of economic and social development. The complex interaction of the economic and social forces that constitute the development process which planning attempts to influence and the fact that the future cannot be controlled during experimentation now makes planning a particularly challenging discipline that makes great demands of the creative energies of those involved in it.

FIGURE 1

PLANNING ORGANIZATION AND REPORTING RELATIONS


NATIONAL ASSEMBLY
PARTY NATIONAL EXECUTIVE COMMITTEE
ECONOMIC COMMITTEE OF THE CABINET
NATIONAL PLANNING COMMISSION
MINISTRY OF PLANNING AND ECONOMIC AFFAIRS
PRIME MINISTER'S OFFICE
OTHER CENTRAL MINISTRIES (Planning Divisions)
PARTY REGIONAL EXECUTIVE COMMITTEE
REGIONAL DEVELOPMENT COMMITTEE
PARASTATAL ORGANIZATIONS
PARTY DISTRICT. EXECUTIVE COMMITTEE
DISTRICT DEVELOPMENT COUNCIL Development and Planning Committee)
VILLAGE COUNCIL (Village Finance and Planning Committee)

⟹ For medium - and long-term plans only.

THE NEED FOR AND USE OF DEMOGRAPHIC VARIABLES IN RURAL DEVELOPMENT PLANNING*

INTRODUCTION

1. Development planning is necessary to ensure optimal allocation of available resources and thereby improve the welfare of the people. Although the underlying ideology of any particular case determines the planning system adopted, the ultimate aim is to increase the value of certain economic indicators like per capita income, the rate of economic growth, amount of social services for a given number of people, etc.

2. Since the planning process is aimed at improving the welfare of the people, it is obvious that the values of certain demographic variables like population size, age and sex composition, spatial distribution, population growth rate and fertility and mortality rates must be clearly known before drawing up a development plan to achieve the desired goals. The government policy statement at the time of decentralization calls for great awareness of population dynamics for rural development planning and the necessary competence to handle the matter. As such "population is much too serious a question to be entrusted entirely to its specialists only" 1/ because the demand for statisticians and demographers is much greater than the supply. Therefore there is need to equip planners and other related personnel with at least some of the basic skills. After all, human resource development is by nature a long-term process whose results can be achieved only over a long period of time.

3. The purpose of this paper is to discuss the prevailing situation regarding the existence, accessiblity and use of population data in Tanzanian rural development planning. Certain demographic variables considered crucial to the planning process are first identified before making an evaluation of the use of these demographic variables in the planning process.

DATA FOR RURAL DEVELOPMENT PLANNING

4. Rural development planning, like planning at any other level, requires access to and knowledge of how to use basic data. The type of data required for this purpose is primarily data available in a form which is suitable for most consumers at different levels with the least inconvenience. These include such basic data as physical features, demographic phenomena, agricultural output, health and educational facilities, economic infrastructure, and the like. More refined data may have to be examined in terms of the cost involved in relation to anticipated benefits. Equally, some projects can be successfully designed with a minimum amount of data. This is where an assessment of the extent and usability of existing data for different purposes becomes an important aspect of the planning process.

1/ J.du Guerny - Migration and Rural Development: selected topics for teaching and research, FAO Economic and Social Development Paper, (Rome 1978) page 4.

* Prepared by P.A.M. Chikira

5. In the United Republic of Tanzania the organizational structure of the rural development planning system allows for data to be collected and data banks formed at different planning levels. At the lowest level, which is the village, a lot of reliable data can be collected since the village is a small and easily manageable unit. At present the village Governments are able to offer data on the population size, age and sex composition, number of households, acreage under cultivation, annual crop harvested, number of livestock owned both communally and individually, number and type of machines in the village, and so forth.

6. However, this important potential source of social, economic and demographic data is faced by several problems. For example these is no standard format that has been adopted for use by all villages in the country. Therefore each village collects and keeps its own data in its own way. Coupled with the lack of any standard format is the lack of common terminology. An example of this is the definition of " an able bodied person" in the village who can be counted among the available labour force, subject to age requirements. The legislative definition is that people may belong to the paid labour force if they are between 18 and 55 years. In the case of villages, any young person of school age contributes to the village labour force in one way or another even on a part-time basis. Therefore for statistical consistency, the definition of people in the village labour force needs further clarification for application to planning at the village level.

7. With existing data at the village level, there is no formalized data reporting system for conveying available data to the higher levels of the districts, and thereafter to the regions and finally the centre. The problem is further compounded by the fact that there is no two-way feedback system of data between different planning levels, something which would help the lower level of the system to improve their procedure. This stituation does not mean that planning has been taking place virtually without data. It is a fact that annual rural development plans have always been prepared with a lot of data input in all the sectors involved.

8. Another bottleneck is lack of proper storage or existing data. Once data are used for a given assignment, they may be forgotten and misplaced and, when the need for the same data arises at a future point in time, the compilation exercises may have to start afresh. Such practices sometimes result in contradictory information over the same time period or sometimes the data may be out of date for the necessary analysis. A related problem is the lack of competent personnel at different levels to manage the existing data. The personnel available at certain levels are either too few to be effective or lack the technical know-how. Hence, the human resource development aspect remains yet another problem to be solved.

9. As far as rural development planning is concerned, population data are very necessary in the sense that nearly all aspects of rural development are in one way or another related to population size, age and sex composition, spatial distribution, the rate of population growth, fertility and mortality rates. The development aspect of the growth of per capita GDP and the demand for food are related to total population size; the demand for education and health services is related to population growth, age and sex composition; the distribution of investible resources is related to the spatial distribution of economic activities which, in turn, is related to the spatial distribution of the population; maternal and child health care is related to the population growth rate which in turn depends on fertility and mortality rates, which help to determine the number of children under five years of age. Furthermore, it is absolutely necessary to be conversant with the interrelationship between demographic and socio-economic factors. Such interrelationships include the way in which the population size and/or the age structure affect development in terms of consumption, production and capital formation. At the same time the knowledge of how development affects demographic components like the levels and trends of fertility, mortality and migration is necessary for planning purposes.

10. In the United Republic of Tanzania, the major source of population data is the population census which is conducted once every ten years. Even after the census is conducted in the field (the physical counting) the census results take a long time to be processed and made available for the planning process owing to the lack of such qualified staff as computer experts. For one reason or another the projections made between the intercensal period have shown remarkable errors. For example, using the 1967 population (according to the population census of that year) as a base, the population of mainland Tanzania was estimated to be growing at an average annual rate of 2.7 per cent, reaching a total of 15.7 million in 1978. However, the preliminary results of the 1978 census have shown that the growth rate is 3.3 per cent and the population is 17,048,329 million. This means that the planning exercise in the whole economy had not taken account of some 1,348,320 people in 1978. This state of affairs implies that development resources available at that particular period of time were unwittingly overstretched to cater for a larger population, hence overutilizing certain capacities in the economy with diminishing returns to the economy.

APPLICATION OF DEMOGRAPHIC VARIABLES IN RURAL DEVELOPMENT PLANNING

11. Consideration of certain demographic variables like population size, age and sex composition spatial distribution, growth rate, fertility and mortality rates is a prerequisite for drawing up a development plan. Demographic and socio-economic data are sometimes collected separately and brought together when working on per capita economic and social indicators. However, this may be due to lack of strong links between

population and related research, and the development planning exercise. This can be seen from the two examples below, showing key economic indicators to express the main objectives for the health sector 1/ and the agricultural sector.

Example 1

Health policy	Health Key indicators
To bring about a society of healthy Tanzanians in which the individual has a reasonable prospect of	
survival through childhood.	Child mortality
normal adult years	Life expectancy
free from infection of preventable diseases,	Incidence of serious diseases
and able to obtain medical aid when needed	Coverage of health facilities

In this example coverage of health facilities (a socio-economic variable) comes last on the list after taking in consideration the population dynamics. At the same time, the anomaly of disregarding demographic variables is shown in the other example below 2/ where the sector involved is the cornerstone of rural development in the United Republic of Tanzania.

Example 2

Key economic indicators summarising development objective for agriculture:-

- adequacy of colour intake
- balance of trade in agricultural products
- crop tonnage harvested per capita
- meat tonnage slaughered per capita

The size of the output here has not been shown in relation to the rural labour force involved, the participation rate, the dependency ratio in the population, and so forth.

SOME MAJOR DEMOGRAPHIC·VARIABLES

12. A look at some demographic variables would help to show how these variables have been applied in rural development planning in the United Republic of Tanzania and the problems encountered in so doing.

1/ as contained in Developing a five-year plan for balanced regional development process for Prime Minister's Office and the regions, prepared by Mckinsey & Co.; Inc. for the Government of the United Republic of Tanzania October, 1974, Exhibit 3-2.

2/ Ibid.

(a) Age structure

13. A close analysis of the population's age structure is an important aspect in rural development planning in the sense that this variable determines the actual and potential supply of labour; the school age population; possible fertility rates; survival probability and the dependency ratio.

14. Of the 17,048,329 people enumerated in the 1978 population census it is estimated that 7 per cent dwell in the urban centres', 47 per cent fall below 15 years and 2 per cent are above 65 years of age. 1/ This gives a net 51 per cent of the population as the potential labour force. But some of those between the ages of 15 and 25 are either in secondary schools, universities or any other training institutions. Including the population which is unemployed therefore, the percentage of population excluded from potential labour force is likely to be less than 50 per cent of the total population. If one substracts the wage-earning fraction, then the rural agricultural labour force is even further reduced.

15. Therefore an analysis of the potential full-time labour force in the rural agricultural sector would in turn be used to determine the type of technology to be adopted in agriculture in order to achieve the goal of self sufficiency in food over a given period of time. It is superficial to lay down agricultural production targets without the support of detailed analysis of the full-time potential agricultural labour force and the type of technology to be used, whether mechanized or non-mechanized type of farming, and if mechanization, then to what degree.

16. This consideration becomes more important when it is known that in the Republic of Tanzania the dependency ratio has worsened from 0.87 in the 1960s, when a dependant was supported by more than one person in the labour force, to 1.01 in the 1970s, when a worker supported more than one dependant. Projections put this dependency ratio at 1.11 in the mid-1980s. 2/ This trend is due to infant mortality resulting from improved health services and better infant care. At the same time the population growth rate has been increasing from 2 per cent per annum in the 1950s to 2.5 per cent in the 1960s and 3.3 per cent per annum in the 1970s. 3/

1/ 1978 World population data sheet of the Population Reference Bureau, Inc., Washington D.C.

2/ C.L. Kamuzora, "Demographic variables as socio-economic indicators: their indentification through the examination of their interrelationships". UNESCO National Meeting on the USE of Socio-Economic Indicators in Planning in Tanzania, Arusha, 7-11 January 1980, UNESCO/ERB/SP-2, page 4.

3/ 1967/78 intercensal growth rates

17. As the age structure of the population is taken into consideration for planning purposes, another important aspect that can be well taken care of is planning for education. The policy of universal primary education in the country testifies how this demographic variable can be of vital importance. Before universal primery education was introduced in 1975 it had been discovered that a very big proportion of the school age group was not able to get places in primary one (standard one). Aggressive measures were taken to alleviate the situation. For rural development planning, schooling has the effect of reducing the participation of children in supplementary family labour force. Since African children start to take part in the family work at an early age, sending them to school means a reduction in the size of the work force.

(b) Population growth rate

18. Currently the annual rate of population growth in the United Republic of Tanzania is estimated to be 3.3 per cent according to the preliminary 1978 census results. This rate of population growth differs from one region to another(there are 20 administrative regions in the country), just as the endowment and exloitation of resources differ. A more realistic approach to rural development planning in this case would be to look into the investment criteria, bearing in mind these differences. However, there is still a wide disparity in the distribution of public facilities like water, education, health and transport. Obviously the colonial approach to rural development aggravated this situation, but the issue at stake today is to reverse this trend. Thus, the current distribution of these essential public services as viewed from the basis of the ratio indicates that a greater number of inhabitants are served by a unit of given type of service as compared to another region, then the disadvantaged region is given more attention to narrow down the regional disparities.

19. With the completion of the villagization programme another question is whether the villages will be able to cope with the rate of population growth in terms of the availability of arable land, the provision of essential services and the production of subsistence food. Already the rate of population growth is high, which is why the dependency ratio is high too. This being the case, the growth of per capita income is in jeopardy if the economic growth fails to catch up with the pace at which the population grows. This situation may further have the further effect of reducing both institutional and individual savings.

(c) Spatial distribution

20. The distribution of the rural population is to some extent a reflection of the pattern of rural development especially because population densities and activities vary substantially between the regions. The geographical features of this country are such that the peripheral areas are the environmentally favourable places for heavy population densities. The north-east parts of Tanga, Kilimanjaro and Arusha are agricultural and densely populated, the lake zone are (around Lake Victoria) to the north and north-west comprise the pastoral-agricultural Sukumanland and the basically coffee and banana growing areas in west lake region. The southern parts of Iringa, Mbeya and Ruvuma regions form another rich agricultural area. On the eastern coast, Dar es Salaam is another island of big population because of its commercial and administrative functions. This pattern leaves the central parts of the country, which include Dodoma and Singida regions, as pastoral farming areas.

21. This kind of population distribution poses both administrative and socio-economic problems to the economy. Mobilization of the development planning machinery is facing problems due to the poorly developed transport system. The roads are poorly developed and many rural areas are cut-off during the rainy season. This disrupts the haulage of consumer goods, agricultural products, construction materials and the movement of people. To a larger extent, the rural development exercise is disrupted and this demands heavy investment in developing and maintaining the rural transport infrastructure.

22. It is the peripheral areas which are geographically favourable for providing suitable places for human settlement and in consequence these are the areas with heavy population density. Places with low population density naturally have low concentration of social services. Planning should strive to correct this type of imbalance.

(d) Migration

23. Migration is another important population phenomenon pertinent to rural development planning. One undesirable aspect is rural-urban migration which often consists of young people between 15 and 35 years of age who are the most productive age group in the rural population. The effect of this type of migration is that the rural sector is robbed of a significant percentage of its best agricultural labour force. At the same time those migrants to the urban centres who fail to secure employment are the cause of urban social unrest because they engage in socially undersirable activities which increase the crime wave. In urban centres these migrants pose socio-economic problems since they form the unplanned urban shanties which cost the government considerable financial resources at a later time when such areas are brought under formal urban development programmes. The current Government campaign of "Kila Mtu Afanye Kazi" (Everybody Must Work) is partly an attempt to check this rural-urban exodus of the unemployed.

24. However, the long-term solution to this population phenomenon is to improve the socio-economic status of the rural areas by introducing modern agricultural techniques which will enable farmers to see the benefit of farming more vividly and abstain from petty employment elsewhere. At the same time rural investment in schools, health, water supply, roads, distribution of consumer goods, electricity and the like help to change rural life and make it attractive. This is one of the reasons why rural development is emphasised in the United Republic of Tanzania.

25. However, a desirable aspect of migration is rural-rural migration which is partly due to pressure on agricultural land as a result of increased population in some localities. In this case migration opens up new rural areas where potential resources are utilized. In most cases such migrants introduce innovative practices in the newly opened up areas, hence speeding up development. A typical case is the Wakara people from the Ukerewe islands in Lake Victoria who moved into the adjacent mainland in Sengerema and Geita districts and have since been very famous in cotton production, to the extent of the attracting foreign funds to aid cotton production.

EVALUATION OF THE USE OF DEMOGRAPHIC VARIABLES IN RURAL DEVELOPMENT PLANNING

26. The emphasis is that the United Republic of Tanzania has placed on decentralization and subnational planning at the regional, district and lower levels has helped to develop a favourable infrastructure for planning at both sectoral and intersectoral levels. With this structure, the flow of demographic and other related data and information would be expected to be smooth. Unfortunately many data are neither known nor accessible to planners at different levels. There is also a general shortage of competent personnel. This situation can be detected in the current third five-year plan document where the major demographic variable applied in rural development planning was a single growth rate in preparing projections for the population.

27. As already discussed earlier, the need to promote the application of demographic variables in development planning in rural areas is very important because planning is not an end in itself. Rather, it is part of the process whose aim is to improve the welfare of the people. In this context, interministerial cooperation and coordination are required to analyse the present and future plans and programmes for their population and development interrelationships and to monitor their implementation. To achieve this enormous task calls for the creation of awareness of population dynamics as related to the development of human resources. All these activities should be carried out at both national and the subnational planning levels.

28. The inclusion of demographic variables in the planning process is a way of making development models and plans clearer and complete, leading to effective plan formulation and implementation. This approach should continue to be a challenge to rural development planners and those at other levels.

THE ROLE OF DEMOGRAPHIC VARIABLES IN THE PLANNING PROCESS IN ZANZIBAR*

INTRODUCTION

1. In many African countries development planning efforts have tended to underplay the role of demographic factors. Invariably, development is narrowly defined in economic terms while the larger population is simply taken for granted. This type of deficiency is exemplified by the development planning experience in Zanzibar. Although recent development planning documents appear to have benefited from demographic data inputs, the role of demographic factors in planning has not been well articulated.

2. This paper, therefore, sets out to identify certain demographic variables that are considered pertinent to development planning in general. These include population size and growth rate, fertility, morbidity, mortality, migration and urbanization. In order to assess the role of demographic variables in planning in Zanzibar, the quality of available demographic data is first evaluated. Since the planning process in the past had under rated the role of these variable, the thrust of the paper is to discuss what should be done in future rather than what the experience has been. The concluding section summarizes the state of demographic knowledge and the potential role of demographic factors in development planning.

THE DEMOGRAPHIC SITUATION

3. The Department of Statistics in the Permanent Planning Commission has responsibility for compiling all data which are useful to the social and economic development of these isles. This directorate co-ordinates census activities; collects, compiles and analyses data on population.

4. Another institution which deals with population data is the Office of the Attorney General (the Administrator-General). This Office registers and keeps records on births, deaths, marriages, divorces and other related data. This office works through three major channels. The first is its own office to which people come and report vital events which occur, especially in the town of Zanzibar. The second is, according to the Zanzibar act and rules, the region and districts. The latter are supposed to register these vital events and forward them to the Administrator General. The third channel is the Ministry of Health.

5. Another institution is the Ministry of Health and Social Welfare which operates mainly through its division of hospital services. At the out-patient section, patients are registered by name, age, sex, type of disease and residence. For those admitted in the hospitals, history of disease is compiled periodically. Information on births and deaths is also obtained. Information on abortion, miscarriages and pregnancy complications is also registered. This could be a rich source of necessary data for planning if the coverage were acceptable. To date, there are 90 medical centres including lock-up stations where doctors visit periodically and patients report. If found to have serious disease one is referred to a proper medical centre where qualified personnel can be found.

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*Prepared by E.J. Mayawalla

6. Aside from these data collecting mechanisms, the major sources of demographic data in Zanzibar are population censuses and administrative records. This implies, of course, that there is no compulsory and universal vital registration system. However, arrangements are under way to establish a vital registration system.

7. Although census-taking started in Zanzibar as far back as 1910, pre-1948 counts were no more than were estimates based on tax registers. Actual enumeration took place in exceptional cases only. Table 1 shows population size, population growth and density since 1921 as provided by the respective censuses. The 1967 and 1978 censuses were carried out jointly with Tanzania mainland. Table 1 shows that the population of Zanzibar has doubled its 1921 size with a very substantial change between 1958 and 1978. Whereas the enumerated 1958 population increased by about 38 per cent from its 1921 size, the corresponding increase during the 1958/78 period was about 60 per cent. The computed annual intercensal growth rates testify to the rapid increase in the islands' enumerated total population since 1921. Equally relevant in this context is the trend in population density implied by the enumerated population. Clearly unless the rapid growth of the island's population is checked, population density will soon constitute a serious problem.

8. Besides the total population size and growth rate, table 2 shows that the islands' population (1978) is very young especially in Pemba island where more than 50 per cent of the 1978 enumerated population was under 15 years of age. One effect of this youthful base of the islands' population is that the potential labour force is rather small (less than 50 percent), again especially in Pemba island. This implies that the island has a high dependency burden.

9. Over all the 1978 census records show that Zanzibar's population is made up of a large proportion of youths. Children under 15 years constituted 48.6 per cent of the total enumerated population. This implies for Zanzibar a high potential natural population growth rate. The sex ratio is estimated from the 1978 census records at 99.4 suggesting that migration to the mainland of Tanzania from the isles is slightly biased infavour of males. The preponderance of females in the population may also be due to sex differences in mortality.

10. Another striking feature of the population is that of rapid growth in urban population. For instance the 1967 population census showed urban population was around 24 per cent of the total population. The proportion increased to about 30 per cent of the total population in 1978. In other words while the isles' population increased by 34 per cent the urban population grew by 66 per cent between the last two censuses (1967/1978). More than 80 per cent of the urban population lives in Zanzibar town.

11. There is very scanty information on the levels of population growth components and virtually none on related trends. Although the 1978 population census data is still being analysed, the little that is known about the fertility, mortality and migration situation in Zanzibar derives from the 1967 population census data. From the latter source the estimated CBR and TFR were 58 per thousand and 6.5 livebirths per woman respectively with 27.7 years as the mean age of childbearing. The recorded CDR was 13.7 per thousand as against 20 for the 1957/58 period and an estimated value of 20.8 (1967). 1/ The main problem with these estimates is that they are too distant in time to reflect the current demographic situation in the island. Nevertheless, they serve to highlight the fact that like the rest of Tanzania the island had definite population problems requiring urgent action. The rising rate of population growth suggests that Zanzibar, like the mainland, has a quasi-stable population with persistently high fertility and gently declining level of mortality.

THE ROLE OF DEMOGRAPHIC VARIABLES

12. Given the foregoing overview of the demographic situation in Zanzibar an attempt is made in this section to draw the attention of planners to the vital role of certain demographic variables in development. Since previous plans in Zanzibar seem to have been unaware of the population dimension, it is hoped that this section will provide a valuable framework for designing future development plans for the isles. The planning process requires a body of reliable data from censuses and vital registration to generate information on population size, growth rates, birth rate, death rate, migration and urbanization.

13. The relevance of population size to development lies in the fact that the relationship between the total population of a country or region and the amount of resources available determines to a large extent the state of social and economic well-being of the individuals making up the population. It should therefore be the general goal of a development policy to reconcile existing population size with the available resources so as to avert the adverse consequences of underpopulation or overpopulation as the case may be.

14. With regards to growth rate, there is no growth rate of population that is inherently undesirable. Much depends on the extent to which population growth rate is commensurate with the productivity of capital and the capital output ratio. Given a constant capital output ratio, a higher rate of population growth implies a diminishing standard of living; if higher living standards are expected a higher rate of investment is necessary. The planner should, therefore, possess adequate knowledge of the population growth rate in planning for better living standards under given economic circumstances.

1/ Ominde, S. The Population of Kenya - Uganda - Tanzania (CICRED series, 1974), tables 2.2, 2.4, 2.6 and 2.11.

15. The role of morbidity and mortality should be considered even more crucial to development planning. While efforts to reduce morbidity and mortality rates are strongly recommended for all human societies, the planner should note that declining mortality under conditions of high fertility implies accelerated population growth. For a high mortality population, planning efforts should focus on the eradication of communicable and parasitic diseases that cause most infant deaths.

16. Although rapid rates of urban population growth in many African countries are traceable to rural-urban migration, the role of migration should first be viewed as positive if adequate policy measures are designed. Migration in any country, in the absence of restrictive laws, is a mechanism for adjusting population to the haphazard distribution of (natural) resources. Therefore, planning efforts should encourage free geographic mobility while designing effective policy measures to control the volume and direction of such movements. If such measures prove effective, the phenomenal growth rate of the urban population, even in Zanzibar, can be curtailed.

17. There can be no doubt, therefore, that one overriding policy consideration for planners in Zanzibar in future is to build into development proposals adequate measures to collect, compile,analyse and report those demographic data already identified as pertinent to planning. The success of future plans will depend to a large extent on the availability and effective use of such data in the planning process.

CONCLUSION

18. With barely half a million inhabitants (1978), Zanzibar exhibits the essential features of a predominantly rural and youthful population. About 48 per cent of the population falls below age 15 years, implying that there is a high potential for future natural expansion of the population. About 30 per cent of the population resides in urban areas but the rate of urban expansion is much higher than that of the total population. Little is known, however, about the current level of fertility and mortality while the migration pattern can only be inferred indirectly from basic census-type data.

19. Previous planning efforts in Zanzibar seem to have taken population for granted. This explains in part why the crucial roles of certain demographic variables (fertility, morbidity, mortality, mortality, migration and urbanization) appear to have been under rated. Although there have been references to the use of basic population data as inputs into plan formulation, the importance of population size and the growth rate has not been well articulated in the planning process.

20. In order to give demographic variables their rightful prominance in the planning process, there is need for an explicit population policy for the whole country of which Zanzibar is a component. Such a policy should specify in clear terms the conditions of fertility, mortality, migration and urbanization and spell out the goals of policy with respect to each variable as well as the means of achieving such goals. In this regard the need to encourage a universal and compulsory system of vital registration should be considered long overdue.

Table 1. Population size, growth and density 1921 - 1978

Year	Total Population size	Annual growth rate (percentage)(a)	Density per km^2
1921	216 797	-	82
1931	235 428	0.8	89
1948	264 162	0.7	100
1958	299 111	1.2	113.11
1967	354 815	1.9	134.2
1978	9 235	2.7	179.9

Sources: Basic Statistics of Zanzibar, State Planning and Development, Zanzibar, 1974; 1978 Population Census,

(a) These are exponential growth rates.

Table 2. Population distribution by broad age groups and regions (1978)

Regions	Percent distribution of population in broad age groups				
	0 - 14	15 - 64	65	Total	
				Percentage	Number
Unguja Island	45.9	49.5	4.6	100.0	273 365
North region	48.5	46.3	5.2	100.0	77 424
South & central region	46.9	47.3	5.8	100.0	52 325
Zanzibar town & West Region	44.2	51.9	3.9	100.0	143 616
Pemba Island	52.1	43.7	4.2	100.0	205 870
North	52.4	43.6	4.0	100.0	106 300
South	51.7	43.9	4.4	100.0	99 550
All Zanzibar	48.6	47.0	4.4	100.0	479 235

Source: 1978 Population Census.

CURRENT POPULATION POLICY IN THE UNITED REPUBLIC OF TANZANIA*

INTRODUCTION

1. In recent years, many countries in the less developed areas of the world faced with high rates of population growth and limited socio-economic development have come to recognize population planning as an integral part of development planning. In this regard, some of these countries have formulated explicit population policies while others are known to have made policy statements or taken actions that have a bearing on population dynamics. The United Republic of Tanzania can be said to belong to the latter category.

2. The purpose of this paper is to piece together various official policy pronouncements by the President and government officials as well as policy measures taken by the Tanzanian Government which have a bearing on aspects of the country's population. Relevant aspects of the population include size, growth rate, composition and certain demographic variables and processes pertinent to population dynamics, namely, fertility, mortality, migration, urbanization and population distribution.

3. In formulating a national population policy, there is need for a factual knowledge of the population and related data. Therefore, this paper also addresses itself to the issue of availability and quality of demographic and certain socio-economic data needed for planning and evaluation of plan performance. How useful are Tanzania census records? What is the state of vital registration data? If available, how reliable are official statistics on national product, income, consumption, health, education and infrastructural facilities? Without these data, it will not only be difficult to formulate a concrete national population policy, it will also be almost impossible to evaluate the performance of policy measures at the end of a plan period.

DEFINITION OF POPULATION POLICY

4. Population policy has been defined as any legislative measure, administrative programme, and other governmental action intended to alter or modify existing population trends in the interest of national survival or welfare. 1/ Such a policy must be specific on the goals and means. For example, if fertility is to be controlled, the specification should state the current level, anticipated rates of change during the plan period and the expected level of fertility at the end of the plan period.

1/ Eldridge, Hope T., "Population policies", in International Encyclopaedia of the Social Sciences, the Macmillan Company and the free Press, 1968, pp. 381-388.

* Prepared by H. Mkini

5. Having stated the goal of a population policy, it is necessary to identify the means or measures that would be adopted in achieving such a target, including costs of such measures in human and material terms. Such a clear statement of government policy enables the planner to evaluate the adequacy of a particular measure. Needless to say the results of such an evaluation are invaluable to the design and implementation of future population policies.

THE DEMOGRAPHIC SITUATION

Growth of the population

6. Like many other African countries, the United Republic of Tanzania does not operate a system of universal and compulsary registration of births and deaths. However, reliable data on population size and composition could be derived from the results of national population censuses being compilled periodically since 1973. From the results of the 1973 national demographic survey, it has also been possible to estimate certain population parameters that are pertinent to the formulation of a national population policy.

7. The history of census taking in Tanzania dates back to 1913 when there was the first count under the German administration. This first census estimated the population of Tanganyika at about 4.1 million. 1/ Between 1913 and 1931, three more censuses were held and from their results, it was found that between the 1920s and 1930 the population of Tanganyika was declining. 2/ This decline was said to be a consequence of the severity of the colonial occupation. Therefore, between this period and 1948 when another census was held, it was not possible to estimate the growth rate of the African population. The first estimate of the population growth rate was given after the 1948 census and it was estimated that the African population growth rate was about 1 per cent annually. The 1957 census recorded a total population of 9.6 million with an annual growth rate of 1.6 per cent. In both censuses, mortality was estimated to be quite high, while fertility was estimated to be very low. Table 1 presents data on some demographic indicators for the United Republic of Tanzania. The 1967 census estimated the population of the United Republic of Tanzania to be 12.3 million with an annual growth rate of 2.6 per cent. The 1978 census recorded 17.5 million, and it is expected that the growth rate will be slightly above 3 per cent per annum and that this growth rate will remain so until 1981, when the fourth five year development plan will be launched.

1/ Fonso A.H. Mkini "A study of fertility and mortality levels and differentials in Tanzania - 1957-73", Legon-Accra, 1977, p. 2.

2/ Country profiles-Tanzania: Population Council, New York, 1974.

8. The 20-year perspective plan (1981-2000), which pay special attention to certain demographic variables (mortality, morbidity, growth rates, dependent population, school age population, active population etc.), assumes different growth rates for the successive five-year development plans. The growth rates are expected to keep on rising up to the year 2000 when a constant or declining rate of growth is expected to be experienced. Table 2 shows the projections at the beginning of every five-year development plan between 1981 to 2000. Under these growth rates the total population is expected to reach 35.5 million by the year 2000. Of this total 47 per cent will be in the 0-14 year age group. Such a high percentage of children will imply a high dependency ratio which will mean that social and economic development programmes will have to be mainly of service or consumption oriented. At the root of this ever-increasing population is the country's persistently high fertility under conditions of high but gently declining mortality. There are, however, no indications that the Government is fully aware of the implication of rapid population growth for implimentation of national programmes of social and economic development.

9. In fact, the Government is known to have no intentions of instituting any direct policy of reducing the natural increase. This stand by the Government was made known in 1974 by the head of the government delegation to the United Nations World Population Conference in Bucharest. The head of the Tanzania delegation noted that almost all countries in Africa had suffered severely from colonialism and slavery, hence this experience had taught the African countries that, ".... for us, people, population are a development asset, the present history of continuing decolonisation is a great testimony of this,... the creative and over abundant power of the people to surmount all obstacles". 1/ He further argued that the United Republic of Tanzania did not have any population problem to warrant any direct measures to reduce the natural increase. He was of the opinion that if population programmes were to be meaningful then the programmes should first seek to redress the economic inequalities that existed between the developed and developing countries so that all nations could realize fully the share of the global economic achievement. His concluding remark on this point was that the United Republic of Tanzania "believes that the cardinal principle of our action will be and must be to match resource and development to population and not population to resources and development".

1/ "National experience in the formulation and implementation of population policy 1960 - 76, the United Republic of Tanzania" (ST/ESA/SER.R/28), p. 16-17

10. Thus from the above arguements it can be said that the official view of the Government on population growth is that it does not consider it as problem; rather it looks at population growth as having a positive relationship with social and economic development. The above was further confirmed by the Government when replying to the United Nations Third Population Inquiry concerning population policies. The Government expressed its belief that a larger population could permit economic exploitation of natural resources, food production and the supply of labour for economic expansion and provide a reliable domestic market. Also, it felt that with a large population it became possible and justified to expand the provision of social infrastructure and services for the whole population.

11. Between 1920 and 1940, when the mortality was very high and the level of fertility low, the Government put emphasis on increasing the total population through improving health services and improving food supply. In 1949 the United Nations made a study of the demographic situation in Tanganyika and recommended that the country was to have an accelerated increase in population. Hence, in the 1950s the policy of the Government was to implement the United Nation's recommendation in increasing the population, and during the period there was a considerable increase in the population especially in the rich agricultural areas of northern Tanganyika. It was therefore found that there was a need to redistribute the population from the high to low (but agriculturally rich) density areas. The 1967 census showed further that fertility was increasing fast above the 1957 estimates. More emphasis was still being put on health services and the "transformation approach" to rural development; even with this fact at hand the Government was reluctant to introduce any measures of reducing fertility.

FERTILITY

12. The government's policy on natural increase was explicity affirmed during the 1974 Bucharest World Population Conference when the leader of the government deligation stated what the country believed to be the best approach to the problem. He said that the solution lay in "the change in the world economic relations and in particular to the establishment of the new international economic order". This "would provide the underlying and essential solution to all problems with which demographic behaviour of the population was associated" In defence of the country's approach to the issue, he stated that the United Republic of Tanzania had a dynamic child-spacing programme which aimed at ensuring that the newly born received adequate care and also that their mothers remained in healthy conditions for them to bring up their children. To achieve that, the government put special emphasis on health education, together with preventive

medicine and mass immunization programmes. Thus with this approach, the desired objectives could be achieved without loss in human dignity and social cohesion.

13. It is therefore clear that the Government is very much conscious of the ever-increasing population growth rate and its consequences on social and economic development planning; yet it is of the opinion that the best approach to reducing natural increase is to have a global change in the pattern of consumption of resources. Even with this belief, the Government has allowed the Family Planning Association of Tanzania to operate as a private organization. The Association operates hand in hand with the Ministry of Health's MCH programme and provides the family planning course in the medical curriculum at the University of Dar-es-Salaam. Its activities at the village level are organized as part of the health education programmes and training. To ensure that the FPA operates without any difficulties, the Government's personnel work hand in hand with the FPA staff and the latter are allowed to use all the facilities in the hospitals, health centres, dispensaries and clinics. The Government believes strongly that this approach will make the family planning services available to all the people and it will further give opportunity to parents consciously to plan the number and spacing of their children, which is an important factor in enhancing the well-being of both children and their parents.

MORBIDITY AND MORTALITY

14. There is no reliable information on mortality statistics for the period prior to 1957. However, the analysis of the 1957 census yielded a crude death rate of 23.2 per 1000, while infant mortality was estimated to be 190 per 1000 live births. The main causes of death were malaria, intestinal parasistes and venereal diseases: The 1967 census estimated the crude death rate to be 22.8 per 1000, the infant mortality to be 160 per 1000 live births, and the life expectancy at birth to be 40 to 41 years. The main causes of deaths were measles, tuberculosis, tetanus and malnutrition. The National Demographic Survey of 1973 estimated the crude death rate to be around 18 per 1000, the infant mortality to be 155 per 1000 live births, and the life expectancy at birth to be 47 years. The main causes of deaths were contagious diseases, malnutrition and under-nutrition.

15. The Government's policy towards mortality and morbidity laid down after World War II was aimed at reducing mortality through the improvement of health services. By the time the country attained its indenpendence, very few resources were being allocated for this purpose and the little that was available found its way to the urban centres, where the emphasis was on curative medicine. The post independence policy has always been outlined in the successive five-year development plans. For example, the first and second five-year development plans for 1964-1969 and 1969-1974 respectively

aimed at improving the standard of living, increasing life expectancy at birth to 41 years by 1974, and improving the preventive health services especially in rural areas. The third five-year development plan for 1976-1981 aimed at reducing mortality (especially infant and child mortality) and morbidity and also increasing life expectancy at birth to 50 years by 1981. The Government should expand and consolidate the social services both in the rural and urban areas by up-grading the health services, emphasizing the literacy campaign, combating diseases which spread easily by putting more emphasis on preventive and educational services like good nutrition especially for children, environmental cleanliness, and providing clean drinking water in both rural and urban areas. It also intends to expand the maternal and child health care programmes and emphasize prevention of contagious diseases like T.B., leprosy, etc. through mass immunization programmes at the village level.

POPULATION DISTRIBUTION

16. Population in Tanganyika before 1950 was dispersed with few concentrations in high density areas around mounts Kilimanjaro, Meru and Rungwe. This pattern of distribution was considered inadequate to bring about any major developmental change in the environment and the utilization of natural resources for the well-being of the population in general. It was therefore obvious that if any major development affecting the whole population was to take place, then there was need for population distribution to facilitate rapid socio-economic development. As early as the 1950s the Government embarked on implementing an even redistribution of the population by putting emphasis on settlement schemes which were agriculturally oriented. It was expected that people could agglomerate in these areas where some of the very essential amenities could be made available to them. Examples of such settlements were the groundnut schemes. But these settlement schemes proved unsuccessful. After the failure of the settlement schemes, the Government decided on a new approach known as the "transformation approach". The settlements under this method were highly capitalized and even received grants from the Government, but such incentives did not make the settlements self-reliant. This project turned to be an expensive one, especially if carried out all over the country. It was also observed that some villages became heavily indebted, costly to maintain, and only a few of the villagers realized the benefits.

17. An official population redistribution policy can be said to date back to 1964 when the first five-year development plan was launched. The plan stated clearly in one of its objectives that people in the rural areas were to be resettled. Concrete implementation came after the 1964 Arusha Declaration. In 1973 the Party (TANU) issued resolutions on the move to establish Ujamaa

villages (villagization programme) and, by the end of the year, it was estimated that there were about 5,000 1/ villages with a population of about 3 million people. The success achieved in the implementation of this project by this year is attributed partly to the decentralization programme which was effected in 1972.

18. In 1974 the Village Act was passed in Parliament, which provided for the grouping of the scattered rural population into villages of a maximum of 600 households. The purpose of villagization, as President Nyerere put it while reviewing the programme ten years after the Arusha Declaration, was "to lay the foundation for permanent improvement in people's lives. 2/ The villages that came into being were to be created by a judicious mixture of self-help and government assistance which provide the necessary infrastructure and social services. In 1976, it was estimated that the country wide vijiji operation (villagization programme) had resulted in 13 million rural inhabitants being resettled in Ujamaa villages. 3/ By 1978 there were 8,000 villages 4/ with a total population of 15 million. Only 10 per cent of the 17.5 million Tanzanians were urban inhabitants. With the completion of the villagization programme, the Government in all its development plans has decided to put more emphasis on making sure that each village gets some of the very essential public amenities like schools, clean drinking water, health facilities and other development institutions necessary for development. Also the Government, through its agencies, intends to make the villages viable production units by investing more in the rural sector. It is expected that this move will not only raise the standard of living of the rural population but will also reduce the rural "disguised" unemployment, rural-urban migration, morbidity and mortality.

SUMMARY AND CONCLUSIONS

19. Given the generally accepted definition of population policy, the United Republic of Tanzania has not yet formulated a coherent national population policy. However, the Government has shown awareness of population issues in development and has adopted legislative measures and taken actions that affected in one way or the other certain aspects of the country's population.

1/ "Maendeleo ya Vijiji", Government Press, Dodoma, 1975.

2/ J.K. Nyerere "The Arusha Declaration, Ten Years After", Government Press DSM 1977.

3/ "Maendeleo ya Vijiji", Government Press, Dodoma, 1976.

4/ "Preliminary results of the 1978 population census", Bureau of Statistics, 1979.

20. With regards to population size, the Government considers the population an asset. Indeed, during the period before 1960 the Government had emphasized the need for a rapid growth of the country's population apparently in pursuance of the 1949 United Nations recommendations. This was achieved through mortality reduction programmes rather than through any deliberate effort to enhance the level of fertility. Perhaps through the national health measures which emphasized curative medicine and developments in food production, the death rate declined from an estimated rate of 23.2 per 1000 in 1957 to about 17 per 1000 in 1973. With a fairly constant but high level of fertility, the annual population growth rate increased from 2 per cent to 3 per cent during the same time period.

21. In the face of a persistently high rate of natural increase of population the United Republic of Tanzania accepts the Family Planning Association but only as a private organization. The objective of the association is not to help the population to achieve a reduction in the over all level of fertility but rather to assist couples in achieving the desired number and spacing of births so as to ensure the health of mothers.

22. It is perhaps in the area of population redistribution that the Government has come up with clear objectives and concrete policy measures. Agricultural settlement schemes were initiated in the 1950s, followed by village "transformation" in which the Government invested substantial amounts in capital development in selected villages with a view to encouraging agglomeration of population. The results were disappointing. The 1967 Arusha Declaration finally came up with resolutions whose implementation seems to have generated the most profound effect on human settlement patterns in the United Republic of Tanzania. The Ujamaa villages that emerged and continued to grow following the declaration are a testimony to the effectiveness of the Government's legislative measures and actions on population distribution.

23. For the development of a comprehensive national population policy in the future the Government should strive to improve the demographic statistical picture. In this regard, a national system of compulsary vital registration is imperative. Any official population policy should also endeavour to specify very clearly the current situation, expected rates of change and anticipated level of a given population parameter at the end of a plan period. The means of achieving a goal of population policy should also be specified. It should also be possible to evaluate the performance of a particular means at given intervals or, more importantly at the end of a plan period. Only then can the Government avoid investments of scarce resources in population programmes that are ineffective.

Table 1. Some Demographic indicators for the United Republic of Tanzania

Year	Population (in thousands)	Crude birth rate	Crude death rate	Growth rate (percentage per annum)
1050	8,313	n.a	n.a	2.0
1955	9,212	n.a	23.2 (1)	2.2
1960	10,328	n.a	n.a	2.4
1965	11,673	n.a	22.8 (2)	2.5
1970	12.286	n.a	n.a	2.8
1973	14,483	45-49	16-18	3.0
1975 (3)	15,374	n.a	n.a	3.0
1977 (3)	16,334	n.a	n.a	3.0

Note:

(1) 1957, estimated from census records.

(2) 1967, estimated from census records.

(3) Projected estimates.

n.a data not available

Source: United States Bureau of the Census. World population 1977 - Recent demographic estimates for the countries and regions of the world. Washington, D.C., 1978, p. 122-123.

Table 2. Population projections at the beginning of every year of the five year development plan, 1981 - 1996

(in millions)

Year		Total population	0-14	15-64	65 and over	Dependency ratio
1981	3.0	18.48	8.54	0.76	9.18	107
1986	3.2	21.61	10.02	0.89	10.70	115
1991	3.3	25.86	12.21	1.05	12.6	115
1196	3.4	32.89	13.95	1.24	17.7	115

Source: Projected from the 1978 census figures

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POPULATION AND EDUCATION PLANNING IN THE UNITED REPUBLIC OF TANZANIA*

INTRODUCTION

1. The purpose of this paper is to examine the relationship between population and education planning in the United Republic of Tanzania. The concept of planning as it relates to education and population is defined. This is followed by a brief history of educational development in the United Republic of Tanzania before and after independence. Major constraints to education planning are indentified and discussed. Actual data on the population and school enrolment are brought to bear on the analysis while drawing out the implications of actual and projected enrolments for planning.

2. Planning is a process of choosing one course of action from alternatives in order to achieve certain goals in the most efficient way. Planning is important in the United Republic of Tanzania because of its under developed nature and its commitment to building a Socialist economy. Since it faces an acute scarcity of resources, the need for setting priorities arises. Planning involves, therefore, the selection and ordering of priorities to determine the order and means of their implementation. A plan is a summary of goals and a programme of action to achieve them.

3. Education is the process by which knowledge, techniques and skills are diffused from various sources of innovation in the society to groups and individuals. Education can be formal or informal. Generally education planning concerns itself with formal education. In all societies education is regarded as a service of fundamental importance to the people. Its main objective in the United Republic of Tanzania is to promote the well-being of the people by increasing their productive capacity, developing skills and knowledge as well as attitudes conducive to economic change and progress. For the country, education is an indispensable tool in the socio-economic development process.

4. Population is of direct relevance to education because the size, age/sex structure and growth rate of population affect enrolment prospects. The size and age/sex composition of the population determine the size of the school-age population by sex. However, perhaps the most crucial factor is the growth rate of population: for, as the population expands so also will the school-age population increase calling for massive increases in the number of school places, supply of class rooms, teachers and attendant social services and facilities. Indeed, experience has shown that in most developing countries, planning efforts have been mainly concerned with coping with massive annual increase in the size of school-age population if only to maintain the status quo. 1/

1/ Jones, Gavin W. "Effect of Population Change on the Attainment of of Educational Goals in the Developing Countries", in Rapid Population Growth: Consequences and Policy Implications: Vol. 11 (National Academy of Sciences Johns Hopkins Press. Battimore) P. 315 - 367.

* Prepared by G.S. Noals.

BRIEF HISTORY OF EDUCATION IN THE UNITED REPUBLIC OF TANZANIA

5. Before independence education was run more or less on a racial basis with separate schools for different races; the best facilities were reserved for white children, followed by Asians, and then Africans, For example, in 1960, just prior to independence, public expenditure on education was as follows:

(a)	European children	392 753 pounds
(b)	Asian children	569 211 "
(c)	African children	2 087 630 "

The public expenditure on Asian and European children in 1960 accounted, for almost one third of the total amount on education, whereas Asians and Europeans together accounted for less than 1 per cent of the population of the country.

6. The first drastic measures were taken immediately after independence to reorganize the education system. On 1 January 1962, an education ordinance was introduced to abolish the racial divisions in education and to give the Government greater control over the education system and institutions in the country. The turning point in the history of education, however, came after the adoption in 1967 of both the Arusha Declaration on Socialism and President Nyerere's policy paper 'Education for Self-Reliance'. The education system had to be reviewed to harmonize it with the economic and social goals defined in the two documents. For example, the President's paper stated: "Since long before independence the people of this country, under the leadership of TANU, have been demanding more education for their children, But we have never really stopped to consider why we want education - what its purpose is ...... It is now time that we looked again at the justification for a poor society, like ours spending almost 20 per cent of its Government revenues on providing education for its children and young people and consider what that education should be doing. For in our circumstances it is impossible to devote Shs.147,330,000 ($18.5 million) every year on education for some of our children (while others go without) unless its result has a proportionate relevance to the society we are trying to create. 1/

7. The outcome of this renovation is summarized in the President's booklet 'Arusha Declaration - 10 Years After' which states that since launching the declaration on 'Education for Self-Reliance in 1967, education at all levels has been directed to suit the needs of the people and the environment of the United Republic of Tanzania in general. In primary schools and for specific post-primary groups there has been new emphasis on agriculture and technology, and students do not spend much effort preparing for admission to Secondary School, which is beyond the possibilities of the majority. Even the illiteracy campaign was meant

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1/ Nyerere, J.K. Education for Self-Reliance, government printer, Dar-es-Salaam. March,1967, page 1.

to give wider education than mere ability to read and write. Secondary schools also increased their emphasis on science and technical subjects. These changes in education are important to the student who now sees his education more beneficial in life, and to the whole country for which technology requirements are rising. 1/

PRESENT STATUS OF EDUCATION

8. Education in the United Republic of Tanzania falls under two major areas:

(a) Mass-oriented education which is offered to all members of a specified category and level; and

(b) Minority education which is offered to only a small minority selected mostly on competitive basis. The first category includes mainly primary and adult education while the latter includes all post-primary education in the formal school system. The aim of the former type of education is to improve the well-being and productive capacity of the population as a whole, while the latter type is essentially aimed at producing manpower required by the nation, especially middle- and high-level manpower.

9. The United Republic of Tanzania is implementing a Universal Primary Education (UPE) Programme originally planned for 1989 but later, in 1974 under the Musoma resolution, changed to 1977. The result is that primary school enrolment has been rising very fast from a mere 486,000 at independence in 1961 to 3,200,000 in 1979 and it is estimated that over 93 per cent of school-age children were enrolled by March 1979. One of the present objectives as expressed in the third five-year development plan is to continue with the implementation of the UPE programme and to ensure that the quality of education as a whole remains high. Another objective of the plan is to increase the number of places for girls in secondary schools. There has been a serious imbalance between the sexes in all post-primary levels of education. For example, admission into form V for boys and girls since independence has been as follows:

1/ Nyerere, J.K. Azimio la Arusha baada ya Miaka Kumi, Government Printer, Dar-es-Salaam. January 1967

Table A. Number of students admitted into form V

Year	Total	Boys	Girls	Percentage of girls
1961	236	211	25	10.6
1963	497	397	100	20.1
1965	780	659	121	15.5
1967	895	742	153	17.1
1969	1 411	1 179	232	16.4
1971	1 608	1 354	254	15.8
1973	1 808	1 543	265	14.7
1975	1 865	1 609	256	13.7
1977	2 120	1 715	405	19.1

Source: Ministry of National Education.

Moreover, enrolment in science and technical subjects are heavily biased against girls. In 1979, there were only 80 girls in technical secondary schools out of 2,645 students. Before 1977 there were no girls. Similarly, at the University of Dar-es-Salaam there were only 12 women studying engineering out of a total of 400 students.

10. Adult education has been rapidly expanded because of the role it is expected to play in the society. The history of adult education in the United Republic of Tanzania dates back to 1946 when, though concerned with community development, it was geared to ex-army personnel, especially in urban welfare centres. At independence more community workers were appointed to carry out adult education in the rural areas. By 1969, around 600,000 people had registered in the adult evening classes. In 1970 adult education was put under the Ministry of National Education because it was in a better position to implement adult education programmes efficiently. The National Literacy Campaign was launched in 1970 with the number of illiterate Tanzanians estimated at 5.3 million. Good results were noted after the first five years. The 1975 literacy examinations revealed that about 61 per cent of the adult population was literate. The percentage is expected to be much higher today.

11. Apart from mere literacy achievements, adult education, which is functional, has brought about tremendous gains in the social and economic fields. In agriculture, for example, people now know how to apply the new methods of farming, including the use of both chemical fertilizers and improved seeds. There have been similar achievements in other areas such as health, crafts, political consciousness etc. through adult education.

12. Secondary education was and is still meant to supply the country with middle-level manpower and also provide inputs for higher academic and professional training institutions. The expansion of secondary education is supposed to depend more or less on these two demands. The total enrolment in public secondary schools has increased from 11,832 at independance in 1961 to 41,792 in 1978, an increase of over 253.3 per cent in 18 years. Also the number of public secondary schools has increased from 39 in 1961 to 84 in 1978. It is important to note here that though there had been such an expansion in secondary education, the pace is by far slower than that of primary education which is universal. Secondary education has been diversified since 1975 with some schools biased towards agriculture, some towards commerce and others towards technical and domestic science.

13. The expansion of education has naturally resulted in the corresponding expansion of teacher training. Education is a labour-intensive undertaking with student-teacher ratio in Tanzania now at 40:1 in primary schools, 18:1 in secondary schools and much lower at higher levels. The task of training the required teachers and meeting the cost of employing them is tremendous. While adult education is being manned mainly by volunteers, other levels of formal education especially primary and secondary education, are big consumers of trained and salaried teachers. In 1961, for example, there were 9,885 primary school teachers. By 1979 there were 56,000 teachers and the figure is one billion shillings per year in salaries alone. The training plan including the Distant Teaching programme in the Districts done outside the normal training colleges, seems to be capable of raising the required number of teachers. The future emphasis may be on upgrading in-service training for these teachers and also the training of additional teachers for secondary schools and other institutions which still rely to some extent on the service of non-citizens.

EDUCATION PLANNING

14. The education planning machinery in the United Republic of Tanzania is difficult to explain. Although the provision of education is apparently a matter for the Ministry of National Education, many ministries, bodies and organizations are involved in both the planning and implementation of educational programmes. Primary and adult education fall under the decentralization programme instituted by the Government in 1972. Decentralization was meant to give more freedom for decision making in the initiation and implementation of programmes and projects at local level. Therefore primary and adult education is planned and implemented by the regions themsleves although the Ministry of Education has over-all responsibility for co-ordination, research, initiation, supervision and evaluation of programmes. Education programmes in the regions are planned and implemented as part of the general rural development plans and are implemented with the help of education officers posted by the Ministry to

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all levels. The villages serve as learning centres for both the young and old. Villagers participate in identifying their education needs and take part in the construction of schools, and furnishing them on a self-help basis, thus reducing the costs to the Government. They also provide the important service of maintaining and supervising the schools since they are part of the village property.

15. Secondary education is wholly planned and implemented by the Ministry of National Education on a national basis. Professional training to provide manpower in the middle and high levels is mainly planned by the Ministry of Manpower Development and carried out by training institutions within the country or abroad under the co-ordination of the Ministry of National Education through its Directorate of Higher Education. Many ministries also run training institutions to give professional training to their employees or cadres affiliated to them mainly in the lower and middle levels. Many of the bigger institutions operate as full parastatal organizations.

POPULATION AND EDUCATION PLANNING

16. The population question is of crucial importance in education planning. Both primary and adult education programmes are mass-oriented and are meant to cover the whole population of a given age-group. Therefore, the population size, structure and other characteristics must be known in planning for, or evaluating the success of such programmes. For example, it is estimated that 93 per cent of all pup ls of primary school age (7-13 years) were enrolled by 1979. This is an index of the success of universal primary education because it relates actual school enrolment to population figures provided by the 1978 census. Population is also an important factor in the distribution of education facilities. The primary school class-rooms, for example, must correspond to the number of school-age children living the area. This is also true for teachers, textbooks, stationary etc. In this respect, the distribution of population is important. As already stated, the population of the United Republic of Tanzania is unevenly distributed with only a quarter of the country inhabited by three quarters of the population. Population structure and distribution must be analysed carefully and used to estimate needs and guide the sharing and distribution of the limited facilities available.

PROBLEMS

17. There are, however, many problems in education planning. Existing population statistics, as in most developing countries, are scarce, in accurateand based mostly on de facto counts. The question of de facto population is important when considering the traditional social systems in an attempt to adapt the education techniques to concrete situations. With growing economic activities and the modernization of the traditional sector, internal movement of the population increases and the gap between de facto and de jure population figures widens, and this will affect planned targets in specific locations within the country.

18. Since a major part of Tanzanian education is mass oriented there is an urgent need for education planners to include demographers and others with some training in population. The education planner must have some knowledge of population variables and their relationships with other variables - social, economic, political, geographical etc., since he has to take them into account. The country has a serious shortage of qualified demographers and there are not enough employed in the planning machinery. There is an urgent need for training education planners in the field of demography or at least for making the service of people with such training available to them. However, this can succeed if the importance of such knowldege is appreciated. Many times the importance of demography as a qualification for education planners is underrated. With opportunities for training within the country and abroad becoming more readily available, this problem can be solved. There is also the problem of the availability of data. Lack of sufficient accurate, up-to-date and relevant data presents a major constraint to planning in general and education planning in particular. For example, in the mass-oriented education, population characteristics are the main factors. Standard I enrolment will depend mainly on the size of seven-year old group in the population and if this population can be projected accurately, then the projected enrolment can more or less be determined. It is, however, difficult to project the population accurately since the present data base is poor.

19. Another serious constraint is the problem of lack of sufficient resources, especially this time when the demand for education is increasing. Education is an expensive service requiring heavy investment, and in the United Republic of Tanzania, it is provided free. Therefore, it presents a heavy burden on the Government. While education especially at primary-school level is expanding very fast and the running costs rising fast, economic conditions are becoming more and more difficult and upredictable owing to a serious deterioration in the terms of trade and rising fuel costs. This has not only reduced the poorer countries' ability to meet education costs but also has created uncertainties in the demand for and utilization of the output from the education system especially at the lower and middle levels. For example, in the United Republic of Tanzania between a quarter and a third of all form IV leavers are not placed each year and in all probability the proportion of unplaced persons will rise. Lack of resources will continue to check the expansion of education and more so the quality of facilities provided to existing and intended institutions. The standard of educational facilities in most primary schools, including buildings and furniture, is far from being satisfactory and in some cases deplorable. Rising costs coupled with the worsening global economic situation will pose quite a number of problems to the planner and the gap between desired and actual levels is likely to persist for quite some time.

20. The problem of unemployment and underemployment among school leavers still lingers on and may, with the expected higher output, grow. To solve this problem, education, especially at the lower levels, (primary and lower secondary) must be made relevant to the demands of the rural economy. Villagization is meant to make the rural areas more producive and attractive. This will in turn encourage school leavers, especially at the primary-school level, to remain and work in the villages. But this can succeed only if the school leavers themselves are armed with the relevant education. Although the overwhelming majority of primary-school leavers remain in the rural areas, there is no assessment to show how far their economic and social activities are linked with the education they received in school. There is need to change the primary school curriculum so as to emphasize the provision of basic skills needed in the villages, and also expand post-primary vocational training centres. This is compatible with one of the aims of the current five-year development plan which provides that after the villagization programme, the question of providing education services had to be reviewed. Hence the objectives and targets of the third plan will be ... to emphasize technical and commercial education, so as to make this education more relevant to the types of occupations students will do after completing school. 1/

21. Although secondary and higher education aim primarily at the provision of manpower, the failure of the economy to provide jobs for an increasing number of secondary school leavers compels some of them to go back to the land. Therefore, as in primary education, secondary education could be planned to meet the needs of those who will opt for self-employment in the rural areas. The present diversification programme is a positive, although insufficient step towards this end.

CORRECTIVE MEASURES

22. Serious attempts have been made to solve some of the problems. Deliberate steps have been taken to correct the imbalance between girls and boys in secondary schools. In 1979, 40 per cent of students who entered public secondary schools were girls. This drastic increase of girls entering form I will greatly increase the proportion of females at form V and in institutions of higher education. The problem of unemployment among school leavers still remains unsolved although it is expected to be reduced through diversification and programmes intended to give students the skills required by the rural economy, thus encouraging self employment in the rural areas rather than migration to towns in search of jobs. The availability and accuracy of population data are expected to improve with time. Each census taken has been an improvement on the previous one. There are also plans to introduce a country-wide civil registration system to provide vital statistics. If it succeeds, it will go a long way to improving data availability and accuracy.

1/ Third five-year plan, vol. I, page 82.

23. Although the country will definitely achieve universal primary education (now 93 per cent) very soon, there is little hope that universal secondary education will be possible soon.. In 1978 secondary school enrolment (both public and private) was 64,000, representing less than 3 per cent of potential secondary school enrolment. This enrolment may not be more than double by the year 2000. In 1979 around 7 per cent of the 200,000 students who finished standard VII in 1978 went into secondary schools. With rapid increase in primary school enrolment, without a corresponding increase in secondary school places, this percentage will continue to fall and by 1990 just around 2 per cent may receive secondary education. The situation is certainly worse at higher levels of education.

CONCLUSION

24. The main aim of education is to improve the productive capacity of the nation. The importance of education in this aspect must, therefore, be given the right emphasis. The United Republic of Tanzania has so far succeeded in achieving attitudes and awareness among the population conducive to development through education and other campaigns. Whereas in most other developing countries the emphasis has been on expansion in both secondary and tertiary schools, in the United Republic of Tanzania the expansion has been more in the primary/adult education.

25. When planning for education, the adverse effects of the underdevelopment of the country must be understood and taken into account. The problem of the lack of resources is among them. In planning for education, data (population included) are among the fundamental inputs. Therefore, like planning in any other field, the problem of both availability as well as reliability of data has to be considered with great urgency.

26. In order to facilitate comprehensive education plans especially for primary and adult education, awareness of interrelationships between education and population characteristics is essential and should be enhanced. Knowledge of the size and structure of the population, its social and economic characteristics and future trends are basic information for education planning. In the United Republic of Tanzania education is considered as a necessary weapon in the war to liberate the people from poverty, ignorance and disease. It will be the task of a government education planner to guide the efforts of the people and the Government to promote a system of education which will enable the people to discover and pursue their own destiny within the aims and goals of the society, using the limited resources available. The achievements so far are commendable. Few countries have done so much within so short a time. But the task ahead cannot be underestimated.

Table 1. Estimated primary-school enrolment, 1976-1990 (in thousands)

YEAR	STD I	STD II	STD III	STD IV	STD V	STD VI	STD VII	TOTALS
1979	598	887	552	485	407	233	198	3360
1980	569	592	880	546	480	403	831	3701
1981	585	563	586	871	540	475	399	4019
1982	602	579	557	580	862	534	470	4184
1983	619	596	573	551	574	853	528	4294
1984	637	613	590	567	545	568	844	4364
1985	655	631	607	584	561	540	562	4140
1986	674	648	625	601	578	555	535	4216
1987	694	667	642	619	595	572	549	4338
1988	714	687	660	636	613	589	566	4465
1989	724	707	680	653	630	607	583	4584
1990	755	717	700	673	646	624	601	4716

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POPULATION AND HEALTH PLANNING IN THE MAINLAND OF THE UNITED REPUBLIC OF TANZANIA*

INTRODUCTION

1. Health planning in any country and particularly in a developing country has to be carried out within the socio-economic context of the country if it is to be meaningful. This paper attempts to describe briefly how Mainland Tanzania, with limited resources, has managed to develop and implement a strategy for meeting the basic health needs of the vast majority of its population. Secondly, it highlights some problems encountered during the process. Finally suggestions are made as to how the situation could be improved.

BACKGROUND

2. With a per capita gross domestic product (GDP) of slightly, over $ US 200 (at current prices in 1978) Tanzania has been described as one of the 25 poorest countries in the world. The economy is predominantly agricultural with 50 per cent of GDP deriving from the agricultural sector. The economy has recently been adversely affected by forces outside the country, e.g. increase in the prices of oil and fluctuation in the prices of agricultural exports. Under these circumstances the Government can afford only about $ US 6 per capita on health per annum (1980-1981).

3. The 1967 Arusha Declaration has been the blueprint for developing the country along a socialist path with man being the centre of development. All the benefits derived from development were to be deployed for improving the wellbeing of man and these benefits were to be equitably distributed.

4. Tanzania's population pyramid, typical of any developing country, has a very broad base peaking rapidly after the age of 15. Table 1 presents the country's main demographic characteristics.

5. The frequent causes of morbidity and mortality in Tanzania are infective and parasitic diseases which account for nearly 35 per cent of all diseases diagnosed at Government and voluntary agency hospitals. Most of these diseases, which cause a high incidence of morbidity and mortality in the vulnerable groups, can be prevented through immunization, improved environmental and personal hygiene, early diagnosis and health education. There is also widespread malnutrition which aggravates the situation. In all, poverty linked diseases account for about three quarters of all deaths. Malaria is the leading cause of hospital attendance and admission (10-15 per cent of all attendances).

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* Prepared by J.R. Rutabanzibwa and A.S. Dhalla.

HEALTH DEVELOPMENT STRATEGY

6. A strategy for the development of the health sector was therefore developped in the light of the above background. The 1971 TANU (now CCM) Biennial Conference gave further imputs to this and a longterm prospective plan for the development of the health sector was prepared with the principal objective of improving the health status of the rural population which comprised 94 per cent of the total population.

7. The strategy was to develop a cohesive health services delivery system consisting of village health posts, rural dispensaries, and rural health centres. These health facilities were to be manned mostly by modestly trained rural health cadres consisting of medical aids, maternal and child health aids and health assistants.

8. This rural health infrastructure was to place great emphasis on preventive and environmental health in the delivery of health services to the population. Targets based on purely economic constraints were set to ensure that basic health services were equitably distributed to the majority of the people. At the same time, in order to ensure provision of proper support to the rural health facilities, it was planned to strengthen district hospitals and regional hospitals. These would serve as the base from where this support could be given. The hospitals could also monitor the implementation of the rural health programmes launched from the network of rural facilities.

IMPLEMENTATION OF THE STRATEGY

9. 1972 was the year of the "Great push" as far as the development of the rural health services is concerned. Although between 1967 and 1972 the trend of health expenditure showed considerable emphasis on urban-oriented curative services, table 2 below clearly shows that since 1971/1972, relatively larger amounts of recurrent funds were spent on rural health centres, rural dispensaries, training of rural health workers and preventive services. The pace of the development of urban-oriented services was deliberately curtailed.

10. The number of rural health facilities increased drastically over the past ten years as can be seen from table 3.

11. The long term plan for 1972-1980 which was formulated in 1971 set three targets for the development of health facilities. One dispensary was to be provided for every 6,000 people per district (the population already served by other facilities was deducted when calculating the target); one rural health centre for every 50,000 people in the rural areas per district and an additional 300 hospital beds or so based on an increase of 300,000 people every year using a 2.7 per cent

growth rate. The target used was one hospital bed per 1,000 people per district. As pointed out earlier, the three targets were based on the economic possibilities (i.e. projected resources and especially recurrent expenditure to 1980/1981) but were also to serve as important guidelines for the equitable distribution of health facilities by district. The performance between 1972 and 1978 is shown in table 4 (lower). Districts and regions with better population/facility ratios were deliberately made to mark time. Factors such as utilization of facility and geographical conditions (difficult terrain, etc.) were also considered in allocating new facilities. Although in table 4 total population per facility ratio have been calculated, the table clearly shows significant success in efforts to achieve an equitable distribution of health facilities.

12. Rural health services were to be manned by rural health cadres who were trained in relatively large numbers. The increase of rural health workers since 1972 is shown in table 5.

HEALTH PROGRAMMES

13. One of the important reasons for expanding the rural health infrastructure was to facilitate the provision of preventive services in the villages using this infrastructures as the base. The biggest single programme to be developed which was to touch the largest vulnerable group of the population was the maternal and child health programme. The target for 1975-1980 was to reach 90 per cent of the eligible children and mothers for immunization against tuberculosis, measles, polio, tetanus, diphtheria, pertusis and small pox, and to provide ante-natal, post-natal (including child spacing) and child welfare services in order to reduce maternal and infant morbidity and mortality. By 1978 a very rough estimate of the coverage of these services was made using the number of children immunized as a proportion of number of elegible children (under one plus 20 per cent of the 1-2 age group, the latter being the most frequent attenders). The coverage turned out to be 60 per cent.

14. Numerous problems have been encountered with regard to monitoring the implementation of the programme. Apart from the problems connected with management, lack of demographic data e.g. proportion of the eligible population, fertility trends etc., made it impossible to set any targets for children and mothers who should be reached per district. These targets would prove useful to the district and regional MCH coordinators who would go further down the ladder to set targets per institution. Monitoring of the programme therefore uses very crude demographic estimates at the regional and national levels only.

15. A large programme involving enormous resources should have a built-in continuous evaluation system or monitoring system and also an information system which would generate output indicators such as reduction in maternal mortality and infant mortality and morbidity. These would indicate the improvement in the general health status of the mothers and children, and subsequently the extent to which the programme has been successful in contributing to the reduction of morbidity and mortality. Apart from the MCH programme, other sizable programmes which were developed were the malaria control, TB and leprosy programmes. These programmes are currently facing the same problems.

16. Until recently the health information system has been at a very rudimentary stage generating institutional statistics which were and are far from reliable. In order to provide a base-line for the development of a proper but simple system, a country wide inventory of health facilities was carried out between October 1973 and April 1979. The data from the inventory is presented in 21 regional reports and one main report which summarizes all regional reports. Other information contained in the inventory is the health manpower situation, staffing pattern and utilization of hospitals, communications staff quarters, MCH services and the drug situation. The information contained in these reports will prove immensely useful to planners and administrators of health services at the national and subnational levels if regularly updated. But in addition to this, demographic data such as size, sex, age distribution, mortality and fertility rates (including growth rates) should be readily and regularly available at the district, regional and national levels for planning, monitoring and evaluation of other programmes as well as health programmes. This should appropriately be the reponsibility of the Central Bureau of Statistics.

17. As population-based surveys are very expensive, very few ad hoc high priority surveys should occasionally be carried out to provide supplementary information. One such survey on the evaluation of the health sector was undertaken between October and December 1979 covering six regions in the country. The report on the evaluation was finalized in October 1980. It looks at various aspects of the health care delivery system at the national and subnational levels and the extent to which health facilities are easily accessible to the people. (within 5 km and 10 kms, the latter being the farthest one should walk to a health centre or hospital). The evaluation of the health sector assesses the quality of services provided by the health care delivery system. Recommendation on how solutions can be attempted are made in the report.

18. The report should facilitate feedback for changing the health care delivery system to suit the needs of the population. Other surveys could

include finding out what the population expects from the health services. Other such ad hoc surveys could cover morbidity surveys in order to ascertain the prevalance of certain selected diseases first as a baseline and later on to see if the programmes (deliberate interventions) have had any impact in terms of reduction in morbidity and surveys on the accessibility of health facilities etc.

19. In a few countries where the routine civil registration is not complete and/or the census and demographic surveys are very costly and do not provide reliable annual estimates of important demographic characteristics like growth rate of the population and certain age specific mortality rate sample registration system is being used as a possible solution. In Tanzania, such a system could very well be combined with important information on morbidity and cause of mortality. This, system, if properly managed could then provide fairly reliable information on a regular basis. The political structure, especially the village government system as well as the rural health infrastructure, could be used without any real problem. A small random sample of villages with rural health centres and dispensaries could be selected and the public health nurse or maternal and child health aid could be trained to manage the system. The returns could then be compiled and analysed at the district or regional level and sent to the Bureau of Statistics which could in turn analyse and compile them further. The vital rates could be used for calculating important demographic variables which could be used regularly by the district, regional and national authorities.

CONCLUSION

20. Although health planning in Tanzania has taken account of the population phenomena through the development of plans and strategies for taking health services to the people, adequate information is not readily and regularly available in order to facilitate effective planning, monitoring and, eventually, evaluation of health programmes. Information is lacking mainly in the whole area of output indicators such as the reduction 'in morbidity and mortality and therefore the improvement of the general health status of the population. There is often a tendency to collect a lot of information which cannot be used. This temptation should be defused. It is, therefore, important that an adequate but simple information system be developed which should generate important demographic data which would be regularly disseminated to the users of the information at the national level. A sample registration system is proposed, it is essential that the Bureau of Statistics which is under the umbrella of the Ministry of Planning and Economic Affairs, should coordinate the collection storage and dissemination of all information about the population. A central reference information centre for the population (preferably

CBS) could also go a long way in solving many of the problems that are currently facing planners and administrators.

21. It must, however, be remembered that it is one thing to have the required information available and quite a different thing to get planners and administrators to use this information in the execution of their day to day tasks. The situation is critical within the health sector where the health care delivery system in most cases is managed by medical personnel. It is important, therefore, that they are given short-term training to utilize population information in planning, monitoring and evaluating the development of the health sector.

22. The Inventory of health facilities and the evaluation of the health sector provide a solid information base on which future health sector plans will be developed.

23. Tanzania has, over the past decade, developed a physical infrastructure of primary health care consisting of dispensaries, health centres and hospitals. Between 80 per cent and 90 per cent of the population now is within 10 kms. of any health facility. Forty five per cent of over 8,000 villages in the country have some health facility. The target of health for all by the year 2000 will mean taking basic health services still closer to where the people live i.e. in every village. As it is economically not viable to provide each village with a dispensary, a new strategy will have to be adopted. This will involve training village health workers from villages without any health facility and they would then provide the basic health services, mainly preventive ones oriented to the villages. These workers will have to be provided with adequate support from the existing health infrastructure.

24. The implementation of the strategy of health for all by the year 2000 through primary health care would entail firstly, proper functioning of the existing network of primary health care infrastructure through retraining or reorientation of existing health workers and continuous support/supervision from the higher echelon and secondly proper physical planning of village health services and training of village workers who should be motivated and supported/supervised from dispensaries, health centres and hospitals. The success of the programme will depend on a built-in evaluation system which would facilitate and ensure continuous evaluation through population-based sociological research (including operational research) and continuous monitoring of the programme to ensure that the services are generally acceptable to the population.

Table 1 Selected demographic indicators for Tanzania

Indicators	Years (Estimates)		
	1967	1976	1978
Crude birth rate/1000	47.0	46.0	43.4
Crude death rate/1000	22.0	17.7	15.6
Rate of population growth (%)	2.5	2.8	3.3
Infant Mortality rate	161.0	152.0	-
Life expectancy at birth (%))	35.0	47.0	50.0
Total fertility	6.2	6.2	6.4
Institutional still birth rate/1000	30.8	23.3	23.0
Institutional maternal mortality rate/1000	3.6	2.5	2.0

Table 2. Recurrent government health budget

(in millions of Tanzania shillings and percentages unless otherwice indicated)
1971/1972 - 1979/1980

Type of Activity	1971/1972 Actual Exp.		1974/1975 Actual Exp.		1977/1973 Actual Exp.		1979/1980 2/ Estimates	
Administration	3.9	3	3.9	1	3.7	0.6	4.3	1
Hospital services 2/	127.5	85	235.9	67.0	371.3	65.0	399.4	64
Health centres	8.5	6	21.5	6.0	40.6	7.1	56.7	99
Dispensaries			38.9	11	53.7	9.4	72.3	11
Preventive services	5.8	4	34.7	10	63	11.0	41.7	7
Training manpower development	4.8	3	17.2	5	28.9	5.1	41.0	6
Med. production and supplies	*260	0.2	4.7	1	9.8	1.7	11.3	2
Total	150.5m/	100.0	356.8	100.0	571.0	100.0	626.7	100.0

Source: Budgets and votebooks, Yearly statistics

1/ Includes dispensaries up to 1971/1972

2/ Excluding recurrent exp. for town councils (no information available)

* Thousands

Table 3 Number of rural health facilities in Tanzania

Facility	Years			
	1970	1972	1974	1980
Hospitals	145	147	147	151
Rural health centres	89	99	130	235
Dispensaries	1,395	1,501	1,620	2,650

Table 4. Distribution of hospital beds, rural health centres and dispensaries by region 1972 - 1978

Region	Population per bed 1972	Population per bed 1978	Population per rural H.C. 1972	Population per rural H.C. 1978	Population per dispensary 1972	Population per dispensary 1978
Arusha	754	806	178,000	84,000	10,000	6,500
Coast	1,500	1,156	131,000	103,000	9,300	5,200
Dar-es-Salaam	401	888	103,000	106,000	8,000	8,800
Dodoma	1,000	542	88,000	69,000	7,900	6,600
Iringa	774	667	267,000	83,000	8,000	5,700
Kigoma	1,050	1,202	168,000	93,000	7,100	7,400
Kilimanjaro	707	727	127,000	82,000	9,000	6,200
Lindi	789	736	175,000	75,000	7,900	5,400
Mara	1,423	1,099	126,000	72,000	8,900	6,600
Mbeya	896	818	228,000	90,000	11,500	7,900
Morogoro	826	652	125,000	94,000	6,900	5,200
Mtwara	850	731	120,000	90,000	17,200	8,000
Mwanza	1,011	969	93,000	74,000	11,200	7,700
Rukwa	1,784	1,558	200,000	75,000	8,200	7,000
Ruvuma	1,036	465	149,000	63,000	6,200	6,000
Shinyanga	1,654	1,434	113,000	92,000	10,100	8,600
Singida	849	843	122,000	95,000	7,500	7,300
Tabora	680	721	124,000	102,000	9,300	7,400
Tanga	638	670	90,000	87,000	6,900	4,900
West Lake (Kagera)	580	617	123,000	120,000	9,000	6,200
Tanzania	804	791	129,000	71,000	9,100	6,700

Table 5. Health manpower development, Tanzania 1972/1980

Health manpower	1972	1980
Graduate doctors total*	479	830
Tanzania doctors	192	503
Assistant medical officers	132	258
Medical assistants	317	1,235
Nurse midwives, grade "A"	877	1,540
Rural medical aids	578	2,100
Nurse midwives, grade "B"	2,382	5,025
Health assistants	270	585
Maternal and child health aids	702	1,906
Village midwives	700	1,190

*Excluding 34 Cuban and 64 Chinese doctors.

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DEMOGRAPHIC ASPECTS OF THE TANZANIA LABOUR FORCE*

INTRODUCTION

1. In recent decades there has been considerably greater interest shown in matters related to economic planning and development among the nations of the world. This interest is focussed on a few economic questions that are important not only to economists but to all students of social sciences. These questions include the size of the working-age population and the proportion of adults actively engaged in economically gainful pursuits; the number of unemployed and under-employed persons and their proportion of the working-age population; the composition of the labour force i.e. by industry and occupation; and income distribution and regularity of employment.

2. The main reason behind this widespread interest in these questions is probably that the economic and social well-being of a country is influenced by the number of earners, their qualifications, the regularity of their employment and the amount they earn. 1/ This implies that there is a direct relationship between demographic and economic factors.

3. There are certain events which seem to indicate that the United Republic of Tanzania has been generally aware of the relationship between economic and demographic events, for in 1964 the country launched a 15-year plan of economic and social development. The aim of this plan was to provide industrial production, transport and housing as well as the provision of essential services including public administration, education and health. These economic activities were expected to improve the country's national income and raise life expectation at birth but they also increased the rural-urban migration of job seekers. As the nation's economic development is influenced by the working population, it is therefore important to analyse various issues affecting this segment of the population from time to time. This paper attempts to discuss the demographic aspects of the labour force in the United Republic of Tanzania.

MANPOWER PLANNING AND THE POPULATION

4. It is very important to mention very briefly the history of manpower planning in the United Republic of Tanzania. The need for it was seen immediatly after independence when it was found out that many senior posts in the Government were filled by expatriates and there were not enough nationals with the required qualifications for some posts. Accordingly, when the 15-year development plan (1964-1980) was

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1/ D.J. Bogue, Principles of Demography.; p 213, New York, John Wiley and sons, 1969.

* Prepared by U.R. Suddy.

launched, self-sufficiency in manpower by the end of the plan was one of the targets set by the then Ministry of Economic Affairs and Development Planning. The Manpower Planning Division of the Ministry dealth with all manpower-related matters at the national level by working harmoniously with the Macro-Planning Division. With the creation of the new Ministry of Manpower Development, the Manpower Planning Division was shifted to the new ministry in 1975, retaining all its tasks but with added responsibility for manpower issues even in the informal and self-employed sector. It is therefore fair to assume that the next five-year plan (i.e. the fourth such plan) would include programmes for the utilization of all categories of manpower.

5. A manpower planning exercice is usually undertaken for two main purposes - to rationalize expenditure on human capital and to ensure availability of the required skills in the right quantity at the right time. This means that manpower planning guides investments on establishing or expanding schools and colleges aimed at producing the manpower required for employment. A plan period normally extends over a number of years and the present one was started in 1964 and was subdivided into three phases of five years each. It is important to bear in mind that the people being trained over 15 or 20 years are drawn from the population and since this is a long-term exercise there may be changes in the structure or composition of the population that may also affect manpower requirements. Similarly there may be changes worth noting in economic development policies (such as those regarding international migration, rural-urban migration, population redistribution and unemployment) that may have effects on the population or manpower. The sections that follow will discuss the demographic aspects of manpower planning in theoretical and general terms and certain demographic and other non-demographic variables within the context of the problems now facing our economy, ending with a summary and recommendation.

DEMOGRAPHIC VARIABLES IN MANPOWER PLANNING

6. Normally the manpower planning exercise involves an analysis of people of various occupations or skills grouped into different categories according to their levels of training. For example category A occupations required university levels skills; category B occupations post-secondary education plus one to three years institutional training; category C occupations normally require secondary education or equivalent; category D occupations are unskilled manual jobs . Thus an engineer is a category A post, while an engineering technician is category B, a mechanical engineer is category C and station hands fall under category D. In order to be able to plan 10 or 20 years ahead, it is necessary to take stock of existing manpower so that it can be compared with the expected future requirements. Often

expected requirements are higher than the existing inventory and so training programmes are prepared. In some cases many of the people already with jobs may change jobs within the plan period or may retire. The demographic variables that are relevant for manpower planning include age, sex, nationality of the individual, education of the individual, occupation of the individual and major industrial group. The effects of each of these variables on manpower are considered later in this paper.

7. The importance of age in the study of the labour force cannot be over emphasized. In modern societies with established formal education systems, a good number of children normally pass through the educational system before they can start working. In the United Republic of Tanzania compulsory primary education for all children aged between seven and 13 years began in 1977. If a child enters standard I at the age of seven, he/she cannot be available for employment until seven years later. Normally a person is considered mature and can enter into a contract of employment at the age of 18. A person can work until a certain age at which he/she is expected to retire. The manpower planner uses the age of a person in a number of situations. One such occasion is when deciding the type of people to send for long or short courses. It is improper to send to a long and expensive course a person who is about to retire from service if there are relatively younger persons around. Another such situation is in the preparation of people to take over the functions of those retiring.

8. For cultural and historical reasons sex is another important variable in discussing economic activities. In the past only a limited number of females were able to receive formal education and as a result wage/salary employment was male-dominated. However at the micro-level, sex plays an important role in a company's plan (for example, withdrawal from work on getting married, on the transfer of spouse or for long leave, maternity). Thus, whereas at the macro-level this variable shows the extent to which education and employment opportunities are gradually offered regardless of sex, at the micro-level, it guides the management in planning a work schedule.

9. Nationalization is another important variable in manpower planning. Its importance was seen right from the time of independence when most of the high and middle-level posts in the public service were filled by colonial officers who were expected to leave after independence. It was found out that there were some posts that expatriates could not fill for political purposes. Moreover, it was not possible to fill all posts with foreign manpower because certain types of manpower are in short supply in many countries and, whenever they are available, they often demand higher salaries than their local counterparts. In the United Republic of Tanzania the term localization is used to define the process through which local people take over posts

formerly held by expatriates and the process whereby expatriates are recruited to fill the posts for which nationals are not available. Information on the progress of localization is available only for the civil service.

10. Closely related to this question of international migration is the question of internal population movements. This movement takes many forms - like movement from rural to urban areas within the same district or to another district, movement of people from a rural area to another rural area, movement from a district to a regional headquarters and movement to the cities. In general, the most notable form of internal population movement is the movement of people from rural to urban area. Some of the people have economic motives such as looking for a better pastureland or a better job. The result is that on the one hand they may create vacancies where they come from while on the other they may stay unemployed or underemployed at the place of destination.

11. Education of the individual is also closely related to the question of migration. The principal reason behind it is that when formal education was established, only a limited number of schools were set up and the people so educated were recruited by the colonial administration. As a result, most of those receiving formal education were normally expected to take up wage/salary jobs. Most of such jobs, like office or factory work, were created in urban areas, which dictated an urban drift. The result of this policy is that there is a notable absence of educated people in the rural areas at present, which implies that some of the rural development programmes lack skilled manpower.

12. Another phenomenon which is related to the availability of manpower in various occupational categories is the mobility of people. Even if manpower forecasts were accurate and were translated into educational inputs and the graduates obtained were later allocated to institutions, actual evaluation of the whole process is undermined by both geographical and occupational mobility of people. As far as national manpower planning is concerned the country does not lose anything if, say, an accountant working with TAKWIMU in the Dar-es-Salaam region resigns in order to take up a similar job with NWATEX in Mwanza or KAUMU in Mtwara. But if the same accountant opts to take a managerial or administrative post whether in Dar-es-Salaam or in other towns, then the national manpower inventory is affected. For example a little research can establish the fact that colleges of national education have trained many more teachers than the actual number currently serving in schools since some of them have joined other professions. A knowledge of the number of people changing occupations helps the manpower planner to readjust manpower forecasts so as to train more persons to replace those who have left. In the same way changes in the distribution of the economically active

population by major industry sector helps to establish a trend useful to a manpower planner.

THE EFFECTS OF DEMOGRAPHIC AND NON-DEMOGRAPHIC VARIABLES

(a) Age

13 According to the 1978 population census, the population of the United Republic of Tanzania was 17,527,564 out of which the mainland contributed 97 per cent. The mainland population cmprised 7,855,359 children aged 0-14 years, 8,497,249 people aged 15-64 years and 695,721 people aged 65 years and above. Thus the percentage of working-age population was 49.8. A look at what the population age composition has been during the last two census periods shows that there had been changes in all the three broad age groupes (Table I). The percentage of children less than 15 years increased from 43.9 in 1967 to 46.1 in 1978 and the proportion of children is expected to increase with persistently high fertility and declining mortality until such a time when the fertility starts to fall. Correspondingly, the proportion of working population will decrease, as has been the case during the 1967-1978 period. However the increase in the percentage of old people from 2.7 to 4.1 is striking, and may be due to better enumeration in 1978 rather than to a real increase over the years.

14. Given the country's broad-based age pyramid, there are more people entering the labour force at the age of 15 than those retiring at the age of 65. For example the recorded percentage age distribution of people aged 0-4, 5-9 and 10-14 in 1967 was 18.2, 16.2 and 11 while of those aged 50-54, 55-59 and 60-64 it was 2.9, 1.8 and 1.8 respectively. So in five years time when most of the children aged 10-14 will be in the labour force while those 60-64 will retire, those retiring will represent only 1.8 per cent of the population as compared to 11 per cent for new entrants. This shows that every year more jobs must be created to accommodate the growing labour force. As shown in table 2 this is typical in developing countries which have large proportions of youthful dependants compared to developed countries.

(b) Sex

15. From the recorded working-age population of 8,497,249 people in 1978 there were 4,084,841 males and 4,412,768 females, thus implying a sex ratio of 92.6. As pointed out earlier females are not as economically active as males. Table 3 shows that males have much better access to educational facilities. Since most of the educated people enter wage/salary employment, it means that males predominate in such posts. It can be seen from table 4 that, although the proportion of females in employment is still far behind that of males, there are signs of improvement. The 1978 census has not yet been

analysed and as such no up-to-date data on economic activities by sex are available. At any rate the 1978 situation is not expected to differ fundamentally from that of 1967. In 1967 it was observed that females were not as economically active as males, and that they were economically more active in the rural areas than in the urban areas.

16. Writing about women in Nairobi, Thadani 1/ points out that rural women are usually engaged in the cultivation of food crops and husking and grinding grains apart from spending almost 30 hours per week on domestic and nonagricultural tasks. However in the urban areas, the situation is much different. There, it was the males who were e ployed and often some of them were forced to leave their wives and families in the rural areas owing to the high cost of living and lack of employment opportunities for females. Recent studies show that this situation is now beginning to change. Mahindi 2/ found out in his study of migration in Dar-es-Salaam that there were more females below age 25 than males among the in-migrants. Among the reasons given by Mahindi are that young women come as students or as housewives since some men tend to marry women younger than themselves. Also, more young women than men come to the city after completing primary education to look for unskilled jobs like house-keeping and baby-sitting or to take up typing courses, etc. Table 5 shows that more females now come to the city not accompanied by their parents.

(c) Nationalization

17. Nationalization of people within the labour force is another relevant dimension in manpower planning. Often people move freely from one country to another and in some cases may even take up employment in a foreign country. Sometimes such employment is only temporary, lasting two or three years. One of the goals of the 1964 long-term plan of the United Republic of Tanzania was self-sufficiency in manpower by 1980 annd for this reason nationalization of employees has been one of the important issues when discussing manpower planning. This question has been covered under the programme of localization.

18. Table 6 shows the progress in localization from 1961 to June 1976. It can be seen that in December 1961 there were only 1170 citizens in high and middle-grade posts compared to 3232 non-citizens. Citizens occupied only 26 per cent of the posts filled. This percentage (column 6) is called the level of localization or the level at which

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1/ Veena Thadani, "Women in Nairobi: the paradox of urban 'progress'", African Urban Studies, N. 3 (Winter 1978-79).

2/ C.J. Mahindi, Cityward population drift in developing countries: the case of Dar-es-Salaam, Cairo, 1980, page 65.

the currently filled posts are occupied by local personnel. Column 7 shows that if one were to depend on local personnel to fill all established posts, then only 19.39 were filled by citizens in 1961 while if non-citizens were also included (column 8) the percentage of posts filled rises to 73.77. It can be seen from the table that the level of localization has risen from 26.28 in 1961 to 93.4 in 1976, and that of self-sufficiency has been rising, although slowly, whereas the level of utilisation of posts has been falling. It means that the number of expatriates is decreasing and that many of the posts are now occupied by citizens (column 6), although the number of citizens is not yet sufficient to fill all established posts (column 7). It can be seen that this situation occurs partly because many new posts are created (column 5) than the available local and expatriate manpower, for the proportion of posts filled by these two groups (column 8) is in fact falling.

19. The data presented in table 6 does not cover all non-citizens even in the civil service and as such measures localization in the high-level manpower category only. Another set of data on the subject is available from the Central Bureau of Statistics. For a number of years now the Bureau has been conducting annual surveys of employment and earnings, which provide information on citizenship of employees. It can be seen from table 7, that the proportion of non-citizens in the country fell from 9 per cent in 1966 to 3 per cent in 1974. Thus by the variable pertaining to nationality of the individual, gives the proportion of non-citizens in the labour force, and since most of the non-citizens are not permanent immigrants, arrangements for their replacement have to be made.

20. Education exerts a tremendous influence on a person's job chances. It can be seen from table 8 that people with nine or more years in school took non-agricultural jobs in the rural as well as in the urban areas. Also, there were higher proportions of people with five or more years in school in the urban than in the rural areas. In the rural agricultural sector about 7 per cent of the people were in this group while in urban agricultural sector it was as high as 14 per cent. In the non-agricultural sectors these proportions were 41 and 46 per cent for rural and urban areas respectively. Thus not only are highly educated people concentrated in non-agricultural jobs, but they also tend to reside in the urban areas. With respect to sex, table 9 shows that while 57 per cent of males 10 years and over had not been to school in 1967, the proportion of females was as high as 80 per cent.

21 It has been seen that educated people tended to be employed in the non-agricultural sector and that there are proportionately more of them in the urban than in the rural areas. The main reason is that proportionately more people in the urban areas are employees while in

the rural areas many people are own-account workers (table 10). It can also be noted from table 10 that 83 per cent of rural females and 50 per cent of urban females were own-account workers in 1967. A more thorough analysis of occupations revealed that most of the own-account and family workers were employed in the agricultural sector as shown in table 11. As high as 97 and 93 per cent of agricultural workers come from these two groups in the rural and urban sectors respectively.

22. Workers can also be categorized into major occupations such as professional, managerial, technical, clerical and others. Often this, is based on the type of job being done or the educational qualification acquired or both. Therefore most of those who complete accountancy courses are expected to be found working as accountants. However in practice people change occupations just as they change places of work. As a result the manpower planner needs information in order to revise plans.

23. The fact that the proportion of working population is falling while that of dependants is rising implicitly means that working people have to nake more effort to produce enough goods and services. However there are a number of factors that affect the labour force and there are a number of people who are not gainfully occupied. In 1967, for example only 80 per cent and 52 per cent of the rural and urban population respectively were gainfully employed. Of the remainder, 3 and 6 per cent of the rural and urban population respectively were students and therefore not expected to be employed at the same time (see table 12). Persons 15 years and over who were neither gainfully employed nor students accounted for 18.4 per cent. If old people 65 years and over were excluded then 13.5 per cent of the population was not gainfully employed.

24. It is clear that some of the people who are not gainfully occupied are handicapped, and others are actively seeking employment. But recent events have shown that there are vacancies not only in the high and middle levels but also in the low-levelposts. The Tanzania Sisal Authority, in its efforts to revise the crop, embarked on a national campaign to recruit about 6,000 more sisal cutters but after several months managed to get only 4,000 persons. [1] Again the Mtibwa Sugar Factory recently announced that it managed to produce only 135 tons of sugar a day since there was a shortage of cane cutters, as the factory had managed to recruit only 430 of the required 700. [2] It is unlike that there are no people to fill such posts. The employment situation is not very much different from that of 1967, and political leaders in the rural and urban areas have embarked on a programme of "Kila mtu

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[1] See Uhuru, 25 January 1980

[2] See Daily News, United Republic of Tanzania, 28 January 1980

afanye kazi" (work for all able-bodied persons), an indication of the existence of able-bodied people who are not gainfully employed. In some cases, people are assisted by their friends and relatives who provide them with the basic necessities and therefore are not in a hurry to get any employment until a job of their liking is obtained (table 13).

25. The situation in the high and middle-level posts is slightly different. Here initially prospective employees are trained by the Government and are then allocated to various employers. Many of those trained were required to fill posts occupied by non-citizens or to man completely new institutions, but because of the shortage of resources, priorities were set. Often there is a time-lag between the planning stage and allocation of the trained manpower, during which time there is a shortage of local manpower. A number of administrative measures were taken to conserve the little manpower available at such a time, as can be seen from the reluctance of employers to release with favourable recommendations those employees who want to join another employer. The only alternative left for them in such cases is to employ expatriates since citizens are unavailable. Similarly some people may migrate to a town in search of jobs that do not exist there and in so doing may remain unemployed while another town is in short supply of manpower of their type. This calls for a better information system that can guide people into vacant posts.

26. The experience of developed countries show that, as the country diversifies its economy and increases its industrial production, more and more people would be required to work in these sectors. Thus the proportion of people in the agricultural sector - the peasantry - is expected to fall as a result of increase in the non-agricultural sectors. It can be seen from table 14 that in 1967 up to 91 per cent of mainland Tanzanians were working in the agricultural sector while in Japan only 32 per cent of the population was in that industry. Availability of data at periodic intervals will contribute a better assessment of the redistribution of the labour force. For example, less than one third of the economically active population was in agriculture in Japan, meaning that the agricultural industry in Japan has advanced technologically to enable such a small proportion to produce enough for the whole population if it is assumed that the country is self-sufficient in food and raw materials.

SUMMARY AND RECOMMENDATIONS

27. The age composition is important in determining the number of people in the labour force. As the population pyramid is broad based in the United Republic of Tanzania every year more young people enter the labour force (say at the age of 15) than the old people who are retiring from it (say at the age of 65). By the use of this variable - age - it is possible to determine the number of people of working ages as well as of the dependent population, apart from ascertaining those entering the labour force and those retiring.

28. An examination of the sex composition of the population showed that there were more females than males in the working-age group. The same was not reflected in education or employment for in these areas the males were more numerous. Among the females themselves those residing in the rural areas were more economically active than their counterparts in urban areas. This sex variable is used to measure the extent to which education and employment services are offerred to all regardless of sex.

29. Localization within the civil service was found to be high which indicates that many more posts are now occupied by citizens than non-citizens. But the proportion of posts that are vacant was seen to be increasing, which indicates a shortage of local manpower and inability to recruit non-citizens.

30. It has also been seen that education to a great extent influences the choice of occupations and mostly in the urban areas. Females were also less educated than males, which again limited their job chances in the formal sector.

31. A few saleint features emerge from this analysis. With the fall in the proportion of the working-age population and an increase of dependants the general expectation is that people will accept any employment opportunity in order to earn a living. In this way education or training is normally seen as a way through which an individual or a nation can increase its skill, and internal migration is viewed as a way through which human resources can be reallocated to the areas where they are most needed. The number of people not gainfully employed is very high (13 per cent), but at the same time there are a number of posts that are not filled. These posts cover both higher categories which need people with certain specialized skill and lower categories that do not need education such as sisal or sugar-cane cutting. Even with the little manpower availaible there are indications of under utilization and sometimes misuse of labour, 1/ but existing regulations make the reallocation of such people difficult.

32. In order to solve these complex problems there is a need to review the employment information system so that all employers (and even villages with ample space to accommodate new settlers) report to a

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1/ In 1974 the Manpower Planning Division in conjuction with the Economic Research Bureau of the University of Dar-es-Salaam carried out a National Survey of high level Manpower allocation and utilisation in the United Republic of Tanzania. This was in response to the general outcry against misallocation, underutilization and misuse of graduates. It was found out by this survey that about 40 per cent of those interviewed were misallocated and the same percentage misused, and that 56 per cent were underutilized. For details see appendix 2 to the Annual Manpower Report to the President, 1974.

single agency the number of vacancies and qualification particulars of people expected to fill them. Also those seeking wage employment or a new village where they can settle should also report to the same agency. In addition to this the agency could also offer vocational guidance to youths. This labour exchange agency could cater for all people seeking gainful occupation in both the agricultural and the non-agricultural sectors.

Table 1. Population age - composition in the United Republic of Tanzania, 1967 and 1978

Year	Age - group (Years)		
	0-14	15-64	65 and over
1967	43.9	53.4	2.7
1978	46.1	49.8	4.1

Source: Calculated from the 1967 and 1978 censuses.

Table 2. Age composition of some selected countries and regions, 1970

COUNTRY / REGION	BROAD AGE GROUP		
	0-14	15-64	65
World total	36.6	57.9	5.5
Mored developed regions	26.7	63.7	9.6
Less developed regions	40.8	55.4	3.7
Egypt	41.9	54.9	3.2
Brazil	42.7	54.3	3.1
India	42.5	54.6	2.9
Nigeria	44.8	52.9	2.2
Ghana	47.0	49.4	3.6
Sweden	20.8	65.5	13.7
Poland	26.9	64.8	8.3
France	24.3	62.3	12.9
Cuba	37.9	56.6	5.5
China	34.5	60.2	5.4
Canada	30.2	61.9	7.9

Source: United Nations Population Division, World population prospects as assessed in 1973, (New York, 1977), table 44

Table 3. Tanzania students selected to enter Universities in East Africa 1961/62 - 1972/73

YEAR	MALES	FEMALES	TOTAL	FEMALE PROPORTION (Percentage)
1961/62	71	3	74	4.1
1062/63	73	9	82	10.9
1963/64	130	8	138	5.8
1964/65	185	23	208	11.1
1965/66	287	41	328	12.5
1966/67	385	20	405	4.9
1967/68	570	94	664	14.2
1968/69	482	96	578	16.6
1969/70	546	96	642	14.9
1970/71	602	99	701	14.1
1971/72	587	70	657	10.7
1972/73	803	98	901	10.9

Source: J. Dwali E 31: (1) and Ulinganisho wa Takwimu za Elimu ya Juu, 1961 - 76, Kurugenzi ya mipangl Yote, Wizara Elimu ya Taifa, Sptemba 1976.

Table 4. Sex proportion of wage/salary employees, 1966-1974,

YEAR	PROPORTION	
	MALE	FEMALE
1966	94	6
1967	93	7
1968	92	8
1969	93	7
1970	91.70	8.3
1971	91	9
1972	88	12
1973	91.7	8.3
1974	91	9

Source: Survey of employment and earnings, years 1966-74
Bureau of Statistics

Table 5. Female in-migrants, year of first arrival and with whom First stayed

WITH WHOM FIRST STAYED	1958 (a)	1959-68 (b)	1969-78 (c)	TOTAL (a) (b) (c)
Parents/Parents in-law	36.05	24.80	20.65	23.31
Spouse	37.21	47.87	43.89	47.32
Brother/sister	13.37	10.02	13.44	12.44
Other relatives	8.72	9.83	11.95	11.03
Friends	1.74	2.41	1.49	1.78
Other	2.91	5.01	3.87	4.11
TOTAL	100.00	100.00	100.00	100.00
	172	539	1	1849

Source: Extract from table 28, Cityward Population drift in developing countries: the case of Dar-es-Salaam, by C.J. Mahindi, Cairo, 1980.

Table 6. Progress in localization and self-sufficiency achieved since Independence, 1961-76

	OFFICERS SERVING IN SENIOR-AND MIDDLE-GRADE POSTS ON PERMANENT TERMS						
YEAR	Citizens	Non-citizens	Total	Established posts	Level of localization (percentage)	Level of self-sufficiency (percentage)	Level of utilization of posts (percentage)
	1	2	3 1 2	4	5 (1/3) x100	(1/4) x 100	(3/4)100
December							
" 1961	1170	3282	4452	6035	26.28	19.39	73.77
" 1962	1821	2902	4723	6409	38.55	28.41	73.70
" 1963	2469	2580	5049	6727	48.90	36.70	74.06
" 1964	3083	2306	5389	7276	57.20	42.37	74.35
" 1965	3951	2011	5962	8019	66.26	49.27	74.35
" 1966	4364	1898	6262	9006	69.69	48.46	69.53
" 1967	4937	1817	6754	9911	73.09	49.81	68.15
" 1968	6208	1619	7827	10921	79.33	56.84	71.67
" 1969	6123	1351	7474	11024	81.92	55.54	67.80
" 1970	8042	1377	9419	14300	85.38	56.24	65.87
" 1971	9708	1015	10723	16393	90.53	59.22	65.41
" 1972	11988	745	12733	20331	94.14	58.96	62.63
" 1973	12600	800	13400	19877	94.02	63.39	67.41
" 1974	15182	1001	16183	25788	93.81	58.87	62.75
" 1975	16051	1235	17286	26803	93.05	59.88	64.36

Source: Annual Manpower Report to the President, 1976. Ministry of Manpower Development, table 76.

Table 7. Wage salary employment in mainland Tanzania by Citizenship, 1966 - 1974

YEAR	PROPORTION	
	Citizens	Non - citizens
1966	91	9
1967	93	7
1968	94	6
1969	94	6
1970	95	5
1971	95.5	4.5
1972	96	4
1973	96.9	3.1
1974	97	3

Source: Survey of Employment and Earnings, 1966/74 (Bureau of Statistics)

Table 8. Economically active population by broad occupational group and education, (in percentage)

Year in school	Mainland	Rural	Mainland	Urban
	Agric.	Non-Agric.	Agric.	Non-Agric.
None	70	25	60	25
1 - 4	24	34	26	27
5 - 8	6	30	12	33
9 or more	0	11	2	15
Total	100	100	100	100
Number (000's)	5033	305	28	174

Source: R.A. Henin (eds) The Population of Tanzania, an analysis of the 1967 population census, Dar-es-Salaam (BRALUP and Bureau of Statistics, 1973), table 8.17

Table 9. Percentage distribution of citizens aged 10 years and over by sex and education, Tanzania mainland

Years at school	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
None	58	81	70	29	58	42	57	80	68
1 - 4	29	14	21	28	19	24	29	14	21
5 - 8	11	4	7	30	17	24	11	4	8
9 -14	2	1	2	11	5	9	2	2	2
15	0	0	0	2	1	1	1	0	11
Total	100	100	100	100	100	100	100	100	100

Source: Q.K. Deay and N. Mogil "Literacy and Education" in B. Egero and R.A. Henin (eds) The population of Tanzania, an analysis of the 1967 population census, Aar-es-Salaam (BRALUP and Bureau of Statistics, 1973), Table 7, 8

Table 10. Economically active population by sex and economic status (in percentage)

Economic Status	Mainland rural			Mainland urban			Zanzibar		
	M	F	T	M	F	T	M	F	T
Employer	1	0	2	1	2	1	0	0	0
Own-account	69	83	76	22	50	27	72	88	80
Employee	12	1	7	74	44	69	18	2	11
Family Worker	18	16	17	1	5	2	9	0	9
Not stated	0	0	0	1	1	1	0	0	0
Total	100	100	100	100	100	100	100	100	100
Absolute number	2734	2635	5369	117	30	207	90	81	171

Source: R.A. Henin, (1973) op. cit., table 8.18

Table 11. Economically active population and broad occupational group and economic status,

(in percentage)

ECONOMIC STATUS	Mainland Rural		Mainland Urban	
	Agricul.	non-agric.	Agricul.	non-agric.
Employer	0	3	1	2
Own - account	79	23	89	14
Employee	3	72	6	82
Family worker	18	3	4	1
Total	100	100	100	100
Number ('000)	5035	305	28	174

Source: R.A. Henin (ed.) 1973, op. cit., table 8.20

Table 12. Percentage distribution of population 15 years and over by economic activity and sex mainland rural and urban 1967

ECONOMIC ACTIVITY	MAINLAND RURAL			MAINLAND URBAN		
	Males	Females	Total	Males	Females	Total
1. Employed	86	74	80	79	17	52
2. Unemployed	2	0	1	6	2	4
1 2. Labour Force	89	74	81	85	20	57
3. Homemaker	0	16	9	0	61	27
4. Students	5	2	3	6	5	6
5. Others	5	6	6	7	13	10
3-5. Not in the labour force	10	24	17	14	78	42
6. Not stated	1	2	2	1	2	1
Total	100	100	100	100	100	100
Absolute numbers('000)	2933	3271	6204	219	167	386

Source: R.A. Henin (ed), op. cit., table 8.11.

Table 13. Migrant population with friends or relatives in city and provided on arrival

	No to all		Yes to one		Yes to two		Yes to three or more		Total	
Male	165	10	71	4	524	31	920	55	1680	100
Female	342	28	46	4	246	20	584	48	1218	100
Total	507	17	117	4	770	27	1504	52	2896	100

Source: Extracts from table 7.2, R.H. Sabot "Urban Migration in Tanzania in M.A. Bienefeld and R.H. Sabot the National Urban Mobility Employment and income survey of Tanzania, E.R.B., University of Dar-es-Salaam, 1972

Table 14. Economically active population by industrial division in selected countries, 1967

(in percentage)

Industrial Division	Tanzania mainland	1967 Zanzibar	Ghana (1960)	Iran (1965)	Thailand (1960)	Turkey (1960)	Japan (1960)
1. Agric. Forestry hunting and fishing	91.1	81.1	57.9	56.3	82.5	74.9	32.3
2. Mining and quarrying	0.1	0.0	1.8	0.4	0.2	0.6	1.2
3. Manufacturing	1.6	4.3	8.6	13.8	3.4	6.8	21.7
4. Electricity,	0.5	1.6	3.3	5.7	0.5	2.2	6.1
5. Electricity, gas, water, sanitary service	0.1	0.2	0.5	0.2	0.1	0.1	0.5
6. Commerce	1.3	4.0	13.6	6.0	5.7	3.1	17.5
7. Transport Storage and Communication	0.8	1.4	2.5	3.5	1.2	1.9	5.1
8. Services	3.5	6.4	5.7	11.1	4.8	8.5	14.8
9. Activities not adequately described or not stated*	10.9	0.5	6.0	3.0	1.8	1.8	0.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Includes unemployed persons in all countries except the United Republic of Tanzania

Source: Table 8.13, as noted under table 8.

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THE EFFECTS OF THE CHANGING POSITIONS OF WOMEN ON FAMILY - SIZE AND CHILD SURVIVAL IN THE UNITED REPUBLIC OF TANZANIA*

INTRODUCTION

1. The main focus of this paper is to assess the position of women in the United Republic of Tanzania and the extent to which their changing social and economic conditions affect their role as active members of the labour force and their child-bearing responsibilities. Problems of the definition of role and status are first considered followed by a general assessment of the position of women in the country. As education of women is crucial to their role of the modern economic scene, an attempt is made to evaluate the employment of women in relation to their increasing enrolment in schools. Both education and occupational status are crucial variables that affect women's child-bearing behaviour and performance. This paper, therefore, attempts to examine the relationship between the two variables and fertility on the one hand and child mortality on the other.

MEASURING STATUS AND ROLE

2. Status can be defined as the prestige to a person performing a particular role or roles and can be expressed on terms of power, rank or esteem. While status defines the individual's place in the social structure, role represents the way in which the individual fulfils the responsibilities expected of his or her particular position. Therefore role and status complement each other and, together, portray the interrelationship between the social structure and the individual. Up to now there are no standard measures of women's roles and status, which makes the exercise of evaluating women's roles and status in society rather difficult. It is even more difficult to adopt standard measures for comparing different societies. There is therefore a need to carry out research and develop indicators of women's status in different societies. Until such an effort is made, the best available indicators, such as education and employment, will continue to be used although their limitations are generally acknowledged.

3. With regard to education and employment the individual can be looked at in terms of prestige and power (i.e., economic power, social power and sometimes political power) accorded to him by the level of his education and/or status of employment. In the United Republic of Tanzania the higher the level of education, the higher the occupational status and prestige one enjoys. Further, a person with higher education and occupational status is expected to play more important

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* Prepared by I.S.L. Sembajwe

roles than one who has less education or one with lower occupational status. such as subsistence farmer. This paper aims at utilizing these two variables to examine the relationship between changing roles and the status of women and child-bearing and child survival in the United Republic of Tanzania. It is postulated here that the higher the level of education and/or occupational status of the women, the lower the level of fertility and of child mortality (i.e. the higher the level of child survival). Therefore, women who are better educated and/or engaged in professional accupations are expected to have lower fertility and higher child survival rate than women with lower education and/or engaged in subsistence agriculture.

THE POSITION OF WOMEN IN GENERAL

4. In economies dominated by subsistence agriculture, marriage tended to be a union of two specialists. The woman's skills were acknowledged and her work was considered just as important as the man's. She played an important role in farming and participated in other economic activities, such as weaving, drawing water and processing and preparing food, and played the roles of child-bearer and child-rearer. The man devoted his attention to growing cash crops or to wage labour for earning the family income. Therefore, men and women recognized their interdependence in such a society. For this reason, it was alleged that women in such communities were on a more equal footing with men than were their more modern counterparts. 1/

5. In recent decades, however, policies aimed at modernizing the farming systems by introducting the concept of private ownership of land and intensive cash-cropping favoured men. Whereas in a subsistence economy women had a user's right to land, with modernization, men were recognized as the sole owners, and women were therefore dispossessed. 2/ This led to greater dependency of women on men. In the United Republic of Tanzania women have traditionally occupied a lower social position than men. 3/ Presently, this anomaly is being corrected since the socialist policy of Ujamaa directs that women should be treated the same as with men, and in Ujamaa villages land is held communally and workers are paid according to their efforcs regardless of sex . As women become educated, the gap between them and men tends to diminish. Besides, education increases their contribution to development by enabling them to participate in many more different areas of national

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1/ M. Elendarf, "The dilemna of peasant women: A view from a village in Ujucatan", in I. Tinker and others, eds., Women and World Development (London, Praeger Publishers, 1975).

2/ I. Tinker and others, eds., Women and World Development (London Praeger, Publishers, 1975).

3/ J. Nyerere, Ujamara: Essays on Socialism (Oxford University Press, 1968).

development than was the case in the past.

EDUCATION AND EMPLOYMENT OF WOMEN IN THE UNITED REPUBLIC OF TANZANIA

6. With regard to education and employment, Tanzania women still occupy a lower position than men. In the traditional society, girls were taught things which society expected of women, such as caring for children, making their husband's happy, cooking and looking after the home. 1/ The introduction of modern or formal education did not change women's position very much. The colonial administrators preferred to educate men in order to use them as clerks and administrators in the colonial administration. Since independence the Government has tried to remove this imbalance, but because of social attitudes towards education for girls and problems of implementation no great change has been made yet. Women's enrolment in higher institutions of learning is still very low (see table 1) mainly because of the attitudes of parents who think that girls are spoilt by two much schooling and no longer want to marry men selected for them. In addition parents believe that girls may get pregnant while at school.

7. The majority of those who go to school study such subjects as education and domestic science because of the common belief that jobs which require training in sciences like engineering, modern agriculture and architecture are for men. 2;3 The inability of the Government to build an adequate number of girls' schools has limited the opportunities of schooling for girls.

8. Education is a key factor in social progress, especially in reducing the gaps between socio-economic groups and between sexes. A lack of education for girls and women not only constitutes a serious initial handicap for them as individuals and as members of society but also seriously impedes the effectiveness of their contribution to development programme. For example, as long as women remain illiterate and are given few opportunities in education and training, the motivation for change so badly needed to improve the quality of life for all will be discouraged. Efforts should therefore be made to increase female education in the United Republic of Tanzania.

1/ P. Olekambaine, "Women and education in Tanzania", a paper presented to the BRALUP Workshop on Women's Studies in Development, 24-29 September 1979.

2/ Ibid

3/ E.M. Munuo, "Education for equality", a paper presented to the BRALUP. Workshop on Women's Studies in Development, 24-29 September 1979.

9. In the case of employment, women, like men, are given equal status in all aspects of development. For example public service sectors such as the National Service Corps, the Tanzania People's Defence Forces and Police and Prisons Administration recruit and train women as well as men. However, elements of inequality can still be identified in some sectors. The proportion of women employed by major industrial divisions is very small. For example, women constitute only 1 per cent and 5 per cent of persons employed in construction, transport and communications and public utilities, respectively (see table 2). This is largely, a result of their low level of education, but is also due to males being given preference by employers in these divisions. It is alleged that the productivity of women is low relative to men's and that women are frequently absent from work because of family problems such as pregnancy and child sickness. The low percentage of women employed in agriculture (3 per cent) shown in official records demonstrates the fact that the national accounting system does not take into account the contribution of women in agriculture since they are not regarded as wage earners.

EDUCATION, EMPLOYMENT AND FERTILITY

10. Studies carried out in developed countries have normally concluded that increased roles and status of women are in direct conflict with large family size. It is often stated that increased female education and employment are also inversely related to family size. In the case of education, the longer the woman stays at school, the longer the delay before marriage. Again, education enables her to acquire high-status employment outside the home and consequently a good income. As a result her role outside the family increases and she views frequent child-bearing as a barrier to her full-time participation in production.

11. It is likely that women employed in professional, managerial and skilled occupations have lower fertility levels than women employed in petty trading, unskilled occupations and agriculture or the housewives. This may be explained in terms of the status of occupations and the wide spectrum of roles which persons in such occupations play in society. For example a woman medical doctor will spend most of the day at the hospital looking after patients and in the evening will often want to attend social functions, community meetings etc. She is therefore reluctant to have many children

12. Unlike the agricultural sector where children are regarded as an economic asset, children are considered an economic burden in the modern sector. Parents start thinking in terms of the quality of life of children and of limiting their family size after paying bills for school fees and equipment, medical charges, toys, special clothing for leisure time, and the like. Children themselves become more

demanding in terms of wanting pocket money at school, money for excursions and other items. At the same time, these children are economically unproductive since they no longer work on the farm and do the tedious tasks, like sweeping, fetching water, looking for firewood or washing the kitchen utensils after meals.

13. In the organized sector of the United Republic of Tanzania, i.e. the modern sector family size is inversely related to the level of education and employment and increasing income. The following tables present supporting evidence from the 1967 Population Census of the United Republic of Tanzania and the 1973 National Demographic Survey of the United Republic of Tanzania. Tables 3 (a) and 3 (b) indicate that women with one to four years of education have higher fertility levels than women who have no formal education. The expected inverse relationship between fertility and education seems to apply after four years of education.

14. It should be noted, however, that the present analysis is incomplete because of the lack of data. The published data used here are not detailed enough to facilitate controlling for variables such as the duration of marriage, traditional abstinence, use of modern contraceptives and pregnancy wastage. Controlling for such variables would indicate what proportion of fertility variation according to the level of education can be attributed to these variables, and what part can be attributed to education per se. Nevertheless, keeping these limitations in mind, it can be postulated that the observed relationship between education and fertility is due to the following factors:

(a) Women with no formal education experience poor health and consequent pregnancy wastage and childlessness more often than women with some education;

(b) The higher the level of education the better the health of the mother and consequently the higher the level of fertility;

(c) The higher the level of education the greater the likelihood of dropping traditional norms and taboos related to periods of breastfeeding and abstinence;

(d) The higher the level of education the lower the level of infant and child mortaltiy;

(e) The higher the level of education the smaller the desired family size;

(f) The higher the level of education the greater the knowledge of, the more positive the attitudes towards, and the more likely the use of contraceptive devices;

(g) The higher the level of education the more likely there will be communication between the husband and wife concerning child spacing and family size.

15. Women with some formal education acquire some knowledge of basic personal hygiene and nutrition, which leads to an important in their health and nutrition. As a result, these women experience lower pregnancy wastage and higher fertility since the reduction in pregnancy wastage is not immediately accompanied by the practice of contraception, while at the same time they develop attitudes leading to shortening of traditional birth-spacing periods. With higher education and increased child survival, women tend to develop attitudes favouring small families. In order to have relatively small families they decide to use contraceptive devices. The data in table 3 are however limited in that they assume that women with no formal education are a uniform group. It is possible that with nonformal education, such as adult education, some women in rural areas have changed their status and roles relative to the rest of the rural women.

16. It is the author's belief that the United Republic of Tanzania has a political and social system which can make it possible to improve conditions of rural women. Through the introduction of rural development bodies and projects, such as village councils, small scale industries and later major industries, the roles and status of rural women will increase since the Ujamaa spirit allows equal participation in these activities by both men and women. As the roles and status of women in rural areas increase, the time available to them to devote to child-bearing will decline resulting in smaller family size.

17. In the case of women's occupation, the mean number of live births seems to be positively correlated with occupational status, except for the city of Dar-es-Salaam (see table 4). It appears therefore that the extended family and cheap nursemaids may provide ample household labour, thus making it possible for mothers in areas outside Dar-es-Salaam to combine large families and working outside the home. The evidence for Dar-es-Salaam indicates that women engaged in urban occupations without easy access to child care facilities will tend to have smaller families.

EDUCATION, OCCUPATION AND CHILD SURVIVAL

18. It is well known that mothers who are better educated and have high-status occupations enjoy a higher child survival level because of their improved living conditions. Tables 5 (a) and 5 (b) show the inverse relationship between the education of mothers and child mortality. Mortality decreases with the number of years of formal education. As stated earlier, the inverse relationship between education and child

mortality may not be due to education per se, but to other intervening factors such as:

(a) Better nutrition (Women with higher education are likely to have high-status occupations and therefore high incomes which can enable them and their families to buy and consume food in sufficient and balanced quantities);

(b) Other better sanitary conditions, such as pipe and clean water, good garbage disposal and sanitary toilets, spacious and clean housing, etc;

(c) Better health care (Women with higher education normally know of available health care facilities and are more inclined to use them).

Although data are not available to test the effects of these factors on child survival, it is postulated here that they play an important role in child survival. Furthermore, data are not available for measuring the relationship between the mother's occupation and child mortality. However, using indirect information related to the household occupation, based on the husband's main occupation, it can be noted in table 6 that mortality decreases as the occupational status of the household increases.

19. Turning to the mother's area of residence, it can be observed in table 7 that child mortality is highest for mothers in rural areas and progressively decreases as the size of the urban area increases, except for Dar-es-Salaam. Mortality is highest in the rural areas where health facilities are most scarce, and where the roles and status of women, as measured by education and occupation, are lowest. The higher infant mortality in Dar-es-Salaam than in other large urban areas reflects the fact that Dar-es-Salaam's population is made up not only of high-status civil servants and workers in other higher status occupations, but also of a large group of recent migrants from the countryside, some of whom are either unemployed or poorly paid.

20. It should not be forgotten that child insurance plays a very important role in decisions taken by families with respect to family size. It is well known that in the past parents have chosen to have many children to compensate for high child mortality to ensure a certain family size. Thus the decision of the Tanzanian Government to set up maternal and child health (MCH) clinics to look after the health of the mother and the child is very welcome. UMATI, through the MCH clinics, advises mothers about the usefulness of child-spacing to the welfare of both the mother and the child, as well as the whole family, and about good child nutrition to ensure the healthy growth of the child. Improved child survival will indeed

reduce the excessive and wasteful reproduction or the desire for many children which is still experienced in the United Republic of Tanzania, especially in rural areas.

CONCLUSION

21. It is apparent that the changing roles and status of women in the United Republic of Tanzania affect fertility and child mortality. Using education and enployment as the readily measurable variables available for indicating roles and status of women in the country, it has been observed that high education and high occupational status are inversely related to large family size and child mortality. Therefore, as the education and employment of Tanzanian women improve, it is likely that child mortality will decline and relatively smaller families will become the norm. However, education and employment may not be appropriate indicators of changing roles and status of women in the United Republic of Tanzania. Research is required to establish suitable indicators.

Table 1. Tanzanian student enrolment in institutions of higher education, 1971-1976

Year	Secondary public schools (Form I-IV)					Year	East African Universities				
	Boys	%	Girls	%	Total		Males	%	females	%	Total
1961	8,504	72	3,238	28	11,832	1961/62	71	96	3	4	74
1962	10,625	75	3,500	25	14,175	1962/63	73	89	9	11	82
1963	12,731	74	1,444	26	17,175	1963/64	130	94	8	6	138
1964	15,135	76	4,762	24	19,897	1964/65	185	89	23	11	208
1965	16,463	75	5,452	25	21,915	1965/66	287	88	41	12	328
1966	17,891	75	5,945	25	23,836	1966/67	385	95	20	5	405
1967	19,207	75	6,344	25	25,551	1967/68	570	86	94	14	664
1968	20,955	75	7,088	25	28,043	1968/69	482	83	96	17	578
1969	22,391	75	7,597	25	29,958	1969/70	546	85	96	15	642
1970	23,148	74	7,969	26	31,117	1970/71	602	86	99	14	701
1971	24,223	74	8,380	26	32,603	1971/72	587	89	70	11	657
1972	25,286	76	8,002	24	33,288	1972/73	803	89	98	11	901
1973	25,923	75	8,579	25	34,502	1973/74	837	92	68	8	905
1974	26,791	75	9,135	25	35,926	1974/75	831	90	88	10	919
1975	28,266	74	10,061	26	38,327						
1976	28,638	72	11,309	28	39,947						

Table 2. Employment by major industrial division, United Republic of Tanzania, 1973

Major division	Citizens							Non-citizens						
	Males	%	Females	%	Young persons	%	Total	Males	%	Female	%	Young Persons	%	Total
Agriculture	62 455	(93)	2 144	(3)	2 781	(4)	67 380	3 135	(98)	64	(2)	3	(0)	2 502
Mining and quarrying	3 927	(95)	210	(5)	23	(0)	4 151	127	(86)	19	(14)	1	(0)	147
Manufacturing	41 396	(91)	4 133	(9)	132	(0)	45 661	1 095	(97)	39	((3)	0	(0)	1 134
Public utilities	11 235	(97)	359	(3)	0	(0)	11 594	367	(97)	13	(3)	0	(0)	380
Construction	53 569	(99)	549	(1)	29	(0)	54 147	1 446	(99)	7	(1)	1	(0)	1 454
Commerce	19 540	(91)	1 939	(9)	26	(0)	21 505	452	(94)	27	(6)	1	(0)	480
Transport and communications	29 560	(97)	892	(3)	1	(0)	30 453	1 599	(97)	49	(3)	0	(0)	1 648
Finance	4 641	(77)	1 403	(23)	8	(0)	6 052	339	(95)	19	(5)	0	(0)	1 900
Service	80 013	(61)	18 384	(19)	156	(0)	98 553	1 362	(72)	538	(28)	0	(0)	1 900
Total	306 336	(90)	30 004	(9)	3 156	(1)	339 496	9 922	(93)	775	(6)	6	(0)	10 703

Table 3 (a)

Mean number of live births per woman aged 45-49 by education of woman, 1967

Education (years)	Mean live births
None	5.2
1-4	5.7
5-8	4.9
9	1.9

Source: 1967 Population Census of the United Republic of Tanzania

Table 3 (b)

Mean number of births per woman aged 35-44 by education of woman and rural-urban residence, 1973

Education (years)	Over-all	Rural	Urban (small)	Urban (large)	Dar-Es-Salaam
None	4.7	4.8	4.1	3.9	3.6
1-4	5.3	5.3	4.9	5.2	4.2
5-8	4.7	-	-	-	-
9	3.9	-	-	-	-

Source: The 1973 National Demographic Surveys of the United Republic of Tanzania.

Table 4. Mean number of live births per woman aged 35-44 by occupation woman and rural-urban residence, 1973

Occupation	Over-all	Rural	Urban (small)	Urban (large)	Dar-es-Salaam
Professional	5.4	5.8	5.5	4.9	3.4
Clerical	4.8	5.4	4.1	4.3	3.3
Non-agricultural	4.8	5.2	4.4	4.2	3.7
Agricultural (self-employed	4.8	4.8	4.3	3.9	3.7
Agricultural (paid)	4.8	5.0	4.8	3.3	4.2

Source: The 1973 National Demographic Survey.

Table 5(a). Mortality measures by education of mother, mainland of Tanzanian, 1967

Education (years)	Infant mortality (per 1000)	Survival to age 5 (per 1000)	Life expectancy at birth (years) (North family)
None	155	739	41
1-4	115	808	48
5	82	868	56

Source: 1967 Population Census of the United Republic of Tanzania

Table 5 (b). Mortality measures by education of mother, mainland Tanzania, 1973

Education (years)	Infant mortality (per 1000)	Survival to age 5 (per 1000)	Life expectancy at birth (years) (North family)
0	92.9	849.3	53.7
1-4	82.4	868.7	55.7
5	49.9	926.0	64.2

Table 6. Mortality measures by household, occupation, mainland Tanzania, 1973

Household occupation	Infant Mortality (per 1000)	Survival age 5 (per 1000)	Life expectancy at birth (years) (North family)
Professional	49.4	925.1	64.0
Clerical/sales	75.2	881.9	57.5
Other non-agricultural	84.4	864.7	55.2
Agricultural (self-employed)	92.9	850.4	53.4
Agricultural (paid)	101.5	830.9	53.7

Source: The 1973 National Demographic Survey

Table 7. Mortality measures by rural-urban residence of mother, mainland Tanzania, 1973

Area	Infant mortality (per 1000)	Survival to age 5 (per 1000)	Life expectancy at birth (years) (North family)
Rural	91.8	851.5	53.7
Urban (small)	82.4	867.9	55.7
Urban (large)	56.8	914.3	62.3
Dar-es-Salaam	79.5	880.2	58.2

Source: The 1973 National Demographic Survey.

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WOMEN AND THEIR ROLE IN DEVELOPMENT *

INTRODUCTION

1. The objective of this paper is to assess the role of Tanzanian women in the social and economic development of the country. As a first step, the paper highlights certain demographic factors considered pertinent to females in the development process. Secondly, the traditional roles of women in Africa are reviewed with particular reference to the United Republic of Tanzania. This is followed by a discussion of the social, cultural and economic factors affecting female participation in decision making and production processes in the country. The final part of the paper focusses on the unrealized potentials of women in development and the need for change. A summary of the main issues discussed is then presented with some suggestions for future research.

SOME DEMOGRAPHIC CONSIDERATIONS

2. In considering the role of women in development, it is important to realize that women constitute more than half of the world's population and thus about half of the human resources. Their development is therefore crucial to the prospects of social and economic transformation especially in the less developed countries of the world. In the United Republic of Tanzania, women constitute over 50 per cent of the total population and the position is likely to persist for quite some time to come. Past, present and future trends in the proportion of females and sex ratios of the Tanzanian population are shown in columns 4 and 6 of table 1. For the United Republic of Tanzania, therefore, development planning cannot afford to ignore the potentials of half of the human resources.

3. Another demographic feature of Tanzanian women and women all over the world is their reproductive performance which is essential for human survival. Like other African women child-bearing is a major preoccupation of Tanzanian women. As shown in table 1 (column 5) at the completion of child-bearing, the average Tanzanian women has given birth to over 6 children. Although the over-all life expectancy at birth is low for the Tanzanian population, estimates show some increase over time. The gap between male and female life expectancy stands at about three years in favour of females and this is expected to persist. 1/ This, of course, is not a peculiar feature of the Tanzanian population as borne out by evidence from pratically all advanced countries of the world.

1/ See UNFPA, Tanzania: Report of Mission on Needs Assessment for Population Assistance, Report No..11, United Nations, New York, 1979, p.97

*Prepared by E.M. Munuo.

THE TRADITIONAL ROLES OF WOMEN

4. The role of women can be said to fall into two categories. First, there is a set of domestic activities which in practically all human societies involves child-bearing and general maintenance of the home environment. In this regard, the average Tanzanian woman plays the multiple role of wife, mother, cook, etc. The second category of roles played by women is associated with economic production. Increasing education of women, urbanization and industrilization have drawn more women into the modern labour force. In the United Republic of Tanzania however, participation of women in paid, urbantype employment remains limited. However, as producers of family staples, the Tanzanian woman in the countryside is a distinguished member of the unpaid family labour force.

5. The roles played by women and men in society are rooted in traditions, customs and beliefs dating far back in history. Such traditional beliefs and customs are known to have relegated the position of women to the background. As noted in the report of the International Forum on the Role of Women in Population and Development (1974).1/"... women who are more than half the world's population and constituted half the human resources, were in the majority of countries .... educationally disadvantaged, and in terms of employment, concentrated in limited number of jobs, at low levels of skill and responsibilities with equally low renumeration, in addition to which millions of women toiled from morning till night as unpaid subsistence farm or domestic workers".

SOCIAL AND ECONOMIC SITUATION

6. At the root of male/female disparities in opportunities is discrimination in access to educational opportunities. Among students enrolled in primary schools in the United Republic of Tanzania in 1965, only 37 per cent of them were girls; the figure increased to 39 per cent in 1969. 2/ At higher levels of the educational pyramid the proportion of girls was much less, with a clear tendency for girls to drop out of school at a higher rate than boys. 3/ The same pattern existed in non-formal education in the United Republic of Tanzania at that period. The results of the 1973, National Demographic Survey in the United Republic of Tanzania also show this discrimination. Not only are husbands reported to be better educated than their wives, but also a proportionately larger number of women than men reported no education.

1/ United Nations, International Forum on the Role of Women in Population and Development (Provisional), ST/ESA/SER.B/E. p. 8.

2/ United Nations, ECA, The data base for discussion on the interrelations between the Integration of women in development, their situation and population factors in Africa, E/CN.14/SW/37, 13 May 1974, see graph on p. 33.

3/ *Ibid.*, p. 32.

7. It is generally agreed that the participation of women in the labour force tends to be grossly underestimated and undervalued. 1/ It is argued that in Guyana, for example, women field workers in the sugar industry worked more hours than men on average per week and yet received less than one half the average salary of men in 1971. This explains, in part, why about 79 per cent of economically active women in Guyama belonged to the "low income" category. 2/

8. In the United Republic of Tanzania, the plight of women is equally poor with regard to remuneration for work done and limited access to the modern sector of production. According to a report 3/ in Bukoba, United Republic of Tanzania, it is estimated that men work 1,800 hours per year in agriculture and women work 2,600 hours, implying a 60 per cent "unit of participation" by women in agricultural enterprises. 4/ When it is realized that about 51 per cent of economically active women in the country (as shown in table 2) were in agriculture, forestry, hunting and fishing in 1967, it is no exaggeration to suggest that most of the food output is produced by women who also do almost 100 per cent of the cooking for husband, children and elders. Indeed for the whole of Africa, women's unit of participation in food production is estimated at 70 per cent; food processing 100 per cent; brewing 90 per cent; water supply 90 per cent; and fuel supply 80 per cent. 5/ Women in Africa are scored 100 per cent unit participation in childbearing, rearing, initial education and cleaning/washing.

DIRECTION OF CHANGE

9. In the face of tradition and customs that relegate women to the background, it is clear from the foregoing that Tanzanian women are a crucial force in the country's economy and society in general. They were denied equal opportunities in formal education in the past and their enormous contribution to production has been poorly rewarded, if recognized at all. They have been victims of high maternal mortality, successive pregnancy syndrome, hard manual labour and limited status in the society. The traditional situation has certainly impeded development. The need for change can hardly be overemphasized.

1/ ILO, Women at Work, ILO, Geneva, 1978, p. 7

2/ Ibid, p. 3

3/ Country report on the United Republic of Tanzania for Libreville Conference, Gabon, 1971.

4/ E/CN.14/SW/37, p. 9

5/ Ibid.

10. Any planning effort to improve the status of women in the United Republic of Tanzania (as well as in other parts of the African region) as recommended by ECA should focus on the following:

(i) Opportunities for wage employment, or the generation of incomes through self or family employment;

(ii) Education, both formal and non-formal, including access to extension services;

(iii) Participation in administration and public life;

(iv) Access to health and maternity services;

(v) Food supply and nutrition;

(vi) Reduction in workloads and means for increasing productivity. 1/

CONCLUSION

11. There can be no doubt from the foregoing that African women in general and Tanzanian women in particular have played, and should continue to play, a substantial role in the social and economic development processes.

12. In order to ensure more effective participation of women in decision making and economic activities in the United Republic of Tanzania, there is need for a radical change of attitude to females in general within the development planning process. Deliberate efforts should also be made to encourage female formal and non-formal schooling while discouraging drop-outs from schools. Conscious efforts should continue to be made to appoint women into positions of authority in public life so as to erode the grip of traditional belief about women while encouraging young girls to compete with their male counterparts at all levels of training and employment.

13. In order to fully understand the constraints under which Tanzanina women operate and uncover their full potential in the development process, it is necessary to encourage further research on the female population. Such efforts should focus on the factors affecting their reproductive performance, access to family planning facilities, and the implications of schooling and participation in urban-type occupations for child-bearing and child-bearing practices.

1/ E/CN.14/SW/37, p.17

Table 1. Some demographic features of the female population of the United Republic of of Tanzania 1950 - 2000

(1) Year	(2) Total Population (000s)	(3) Female population (000s)	(4) Females as percentage of (2)	(5) Total fertility (per 1000 women)	(6) Sex Ratio	(7) Life expectancy at birth
1950	7 892	4 262	54.0	-	85.2	35.9
1955	8 875	4 728	5.33	-	87.7	38.4
1960	10 073	5 294	52.6	-	90.3	40.9
1965	11 520	5 972	51.8	-	92.9	43.4
1970	13 272	6 785	51.1	6 706	95.6	46.1
1975	15 438	7 861	50.9	6 706	96.4	48.7
1980	18 052	9 158	50.7	6 604[a]	97.1	51.2
1985	21 142	10 694	50.6	6 421[b]	97.7	53.8
1990	24 805	12 517	50.5	6 104[c]	98.2	56.3
1995	29 130	14 673	50.4	5 664	98.5	58.7
2000	34 045	17 124	50.3	5 664	98.8	58.7

Note:
- (a) 1980-1985
- (b) 1985-1990
- (c) 1990-1995
- (d) Males per 100 females

Source: Adapted from, UNFPA, Tanzania: Report of Mission on Needs Assessment for Population Assistance, Report No. 11, (New York), May 1979, p. 97.

Table 2. Percentage of women in the economically active population by industry, Tanzania*, 1967

INDUSTRY	Percentage
1. Agriculture, forestry, hunting, fishing	51.1
2. Mining and quarrying	1.9
3. Manufacturing	9.9
4. Construction	0.7
5. Electricity, gas, water & sanitary services	2.7
6. Commerce	9.4
7. Transport, storage & communication	1.5
8. Services	18.8
9. Others	4.0
TOTAL	100.0

* Mainland data only.

Source: United Nations, ECA, The data base for discussion on the interrelations between the integration of women in development, their situation and population factors in Africa, E/CN.14/SW/37, Addis Ababa, 1974, p.19.

POPULATION RELATED RESEARCH PRIORITIES IN THE UNITED REPUBLIC OF TANZANIA*

INTRODUCTION

1. The purpose of this paper is not to draw up a list of research conducted in the field of population, as this has already been done in two documents submitted to this seminar. The report of the Mission of Needs Assessment for Population Assistance has outlined what has been done in population-related research, and has indicated areas for future research. The paper presented by A. Mascarenhas also contains an inventory of population-related research works. This paper, therefore, proposes to make suggestions concerning the assignment of research priorities.

2. There are two main purposes for conducting population-related research in the context of the development strategy of the United Republic of Tanzania. The first is to improve the quality and increase the quantity of population-related data. Refined population data, which is required for development planning, is solely lacking in the United Republic of Tanzania. The second purpose is to gain insight into population-related problems, thus facilitating planning and decision making.

RESEARCH PRIORITIES FOR QUALITY POPULATION INFORMATION

3. The existence of quality population information requires the availability of as complete data as possible on relevant aspects of population, eg., complete and analysed census data. The analysis reveals the position of various components of the population (distribution by sex and age, geographical distribution, etc.) and their dynamics (growth rates, changing age distribution etc.). With the 1978 census conducted but its results not available for use, its processing, analysis, publication and dissemination must be the first priority. The census data analysis will bring to light deficient areas where further investigation is required. It is during the analysis of census data that different population concepts will be defined and discussed eg., concepts relating to the economic activities of the population.

4. These include demographic and economic dependence ratios, employment, productivity, etc. There is need for further discussion on the concepts of the dependence of one population group on another and for clarification of the context in which the changing structures of dependence relationships have unwanted repercursions. One might want to go further in the examination of this structural problem of the population by relating it to other population dependence phenomena manifesting themselves in different forms in societies. A question which comes to mind is how the problems of demographic dependence ratios differ from the problem of the dependence of the growing non-agricultural population on the dwindling agricultural population and why the latter phenomenon has come to be regarded as a natural economic development trend in advanced countries.

*Prepared by U.P.K. Tenende.

5. With regard to the employment problem it is easy to fall into the trap of considering employment as "working for someone" rather than as "occupying oneself in activities which enable one to fulfil one's material and other human needs". How one looks at such concepts matters a lot, because each approach leads to different solutions to the same problem. It is of crucial importance to conceptualize the problem of unemployment in a manner that will lead to permanent solutions. The same is true for the problem of productivity.

6. The question of labour productivity is the most important and most complex phenomenon affecting development programmes. Labour productivity determines the pace of a society's development and is the only true indicator of progress in economic development. A consistent increase in labour productivity indicates the population's growing mastery of technology and of the environment at large and is a measure of the sucess of the population's concerted determination to change its way of life in a positive way. There are complex sets of factors, including population changes, which influence labour productivity. It follows that it is important to know how and to what extent population changes influence productivity, as well as to understand other factors contributing to this problem.

7. In addition to studying the 1978 census and making it available for consumption, there are other areas which require immediate research. One important area among them is the problem of the production of goods and services as it relates to unemployment, underemployment and low productivity. This is a research area which links together population, resources and resource use. The issues to be studied in this regard include the nature and extent of unemployment and underemployment and of the problem of school leavers in the country.

RESEARCH PRIORITIES RELATED TO CURRENT NATIONAL POLICIES

8. In its efforts to stimulate change in the way of life of its people, the Party and Government of the United Republic of Tanzania have instituted many policy measures. For these measures to be effective and produce the greatest results there is need for flexibility on the part of policy makers. Such flexibility assumes a readiness to improve on the details of policies as required by the circumstances of their implementation, and can only be achieved when one is working and taking decisions on the basis of adequate information - information which must be obtained through research.

9. There is need for research on the impact of village development on future rural - rural migration and its resulting effect on the efficient utilization of rural resources. At present there is evidence of a reluctance on the part of people living in areas with relatively high populations to move to areas where land is less utilized. Some of these areas have been affected by the process of village development. In such areas there is room for economic decision making at the individual levels mainly because activities are not organized, whereas the new villages are organized and governed in a manner that a large portion of their activities, whether social, economic or cultural is commercial. Such a commercial structure has to be looked into so that regulations can be made which will allow for the mobility of the members of some rural communities with a view to the best utilization of rural resources. Research on rural - rural migration can also consider problems related to various aspects of rural life, particularly the state farms. These farms and peasant farms in cotton-growing areas have been experiencing a shortage of labour. These are some of the problems created by a mixed rural economy.

10. Related to the problem of rural - rural migration is the study of the impact of rural - urban migration on the stability of the efficient use of resources by Ujamaa villages. There is a general trend among young men and women, premarily those who have had some schooling, to migrate to urban areas. They leave behind villages populated with old men and women to develop the rural resources, only to find themselves redundant in urban areas. With the successful implementation of universal primary education, unless steps are taken to remould the school curriculum and teaching methods, the problem will become even more serious.

11. There is need to study the problem of the rural/urban relationship so as to make Tanzanian cities more dynamic. It has to be made clear here that, although developing an agrarian society is not the United Republic of Tanzania's long-term development policy, recognition of the reality of the economic structure of Tanzanian society has made it necessary to emphasize the development of the rural sector service. The rural sector now provides, either directly or indirectly, all the basic resources, labour, food and industrial raw materials, for the country's social and economic development. No one expects to cutoff the flow of people to urban areas, which would be a negation of the country's determination to develop. The problem at issue here is the need to systematize the flow of resources from the villages to other sectors of the economy.

12. The question of primary education concerns two levels - the primary school level and the adult education level. The former involves the young while the latter involves grown-ups. In this country education is considered as the key to socio-economic development. The country has adopted a strategy to fight ignorance through literacy. With the introduction of universal primary education there is need for a rigorous count of the

primary school age group to assess the burden of implementation of universal primary education, bearing in mind that in this assessment one has to look beyond the present reigning "production co-efficients". With respect to adult education, there is need for rigorous assessment of the extent of literacy in the population and its general impact on the way of life of the people.

13. The persistence of cholera in the country calls into question the impact of adult education and medical preventive measures. It is also an indicator of the country's level of health. However research on family health should also focus on other equally important issues like the extent and quality of child-care services and the state of the family. Morbidity and mortality are crucial and sensitive indicators of development. Research into such variables calls for an interdisciplinary approach in order to measure their incidence and to understand people's attitudes to and use of modern health facilities.

14. Research on child-care services should comprise research on family planning and on the effectiveness of the available maternal and child health centres. However, an important point with regard to family planning, which might be overlooked, is the state of the family institution today. Family planning programmes must be established in a particular social framework. There are indications that the family is losing its grip. It seems that parents have almost lost control of their children and that interest in marriage is waning. Such conditions weaken the social framework, ie. the family, methods to regulate fertility can be used.

CONCLUSION

15. In general, there is need for micro studies on the nature of the relationship between shifts in the population structure and the attainment of given social or economic development goals. This also implies more intensive investigation of the correlates of basic demographic variables under conditions of modernization.

16. There is also a need to develop models of demographic and socio-economic interrelationships, utilizing data from the United Republic of Tanzania at the local, regional and national levels. Such studies are essential to provide basic information on the role of population in development planning. In addition, there is a need to build models to study regional disparities in the country's socio-economic development if the goal of the equitable distribution of resources is to be attained.

INVESTMENT IN POPULATION STUDIES AND THEIR UTILITY: TRENDS AND PROSPECTS IN THE UNITED REPUBLIC OF TANZANIA.*

INTRODUCTION

1. Government investments in population studies fall into two broad categories. First, there is the budgetary allocation for population data collection, including census, vital registration and ad hoc demographic surveys. Second, there is government investment in the training and maintaining of population experts. Such investment are intended to provide basic population data for use by experts in planning in the field of population and to guide policy formulation and implementation.

2. The purpose of this paper is to assess the extent of government investments in population data collection and demographer training over the years. In addition, a critical look is taken at the utilization of population data in the planning process in the United Republic of Tanzania.

INVESTMENTS IN POPULATION STUDIES

3. Interest in collecting population data in the United Republic of Tanzania dates back to the colonial period. A census of the population of Zanzibar was taken in 1910, and of the population of Tanganyika in 1921, 1931, 1948, 1952 and 1957. The first national census of the United Republic of Tanzania was the 1967 population count. Another national census, thought to be better planned and more accurate, was taken in 1978. The paper focuses on the two post-independence national censuses in assessing the extent of government investments in population data collection.

4. Preparations for the United Republic of Tanzania's census started about two years before the census was taken in August 1967. It was difficult to prepare estimates for the national census, since most of the costs during the colonial period were hidden in native authority votes. However, in 1966 it was estimated that about 3 million shillings would be needed. A few months later, against the background of an established census programme, this figure was increased to Tsh. 7.78 million. To this figure must be added Tsh. 250,000 contributed by the Zanzibar Government. However, it soon became obvious that even these estimates were on the low side and supplementary assistance was sought, bringing the total expenditure of the census to Tsh. 12,353 million. The actual cost was slightly over one shilling per person enumerated (1967 census, vol. 5). This figure compared very favourably with other African countries. The payment of supervisors and enumerators constituted 40 per cent of the cost and transport, 26 per cent. In contrast, data processing accounted for 6.1 per cent; training, 4.9 per cent and geographical work, 4.1 per cent of the total cost.

*Prepared by Adolfo Mascarenhas.

5. It was not until 1973 that the next significant demographic exercise, the National Demographic Survey (NDS), was undertaken. Only partial costs of this survey are available. Over Tsh. 1.5 million was spent to obtain information from 64,183 households living in 71 rural clusters and 22 urban areas. The cost excludes the salaries of 20 senior officers (Zonal Chiefs and Inspectors) from the Central Statistical Bureau and another 10 man-years of work from the Bureau of Resource Assessment and Land Use Planning (BRALUP). Conservatively, the cost of NDS was in the region of about Tsh. 3 million.

6. In 1978, the Government conducted the second national census. It is still too early to state how much the census has and will eventually cost. Direct costs are estimated to be roughly Tsh. 40 million. If the data are to be of any value, several million shillings more will have to be spent to process even basic information. As has become evident from a comparison of the two censuses, the eventual cost of 1978 census will probably be five times greater than the cost of its predecessor.

7. If financial investments have been high, so too has been the investment in personnel. There were 18,541 enumeration areas during the 1967 census and several thousand enumerators were required. In the more recent count, the number of enumerators was reduced significantly because of villagization. For the national demographic survey, over 275 enumerators and supervisors were used. There were nearly 20 middle- to high-level personnel used during the period for the census and NDS.

8. Considerable resources have also gone in to the training of professional staff. Although not directly connected with the census programme, six Tanzanian graduates have worked on doctoral degrees in demography or population studies. The training programme in BRALUP and geography has produced scores of under-graduates and about nine post-graduates and there have been more than a dozen who have gone to Cairo, London, Accra and other centres for diplomas. These investments have made Tanzanians familiar with surveys and related activities.

THE CAPACITY FOR UTILIZING DATA

9. From the foregoing considerable effort, planning, manpower and relatively large sums of money have been deployed in the United Republic of Tanzania to collect demographic data. The question may be asked whether maximum returns have been obtained from the resources which have been used. The answer is not simple because the population situation is not only dynamic but it is made more complex by the manner in which the data is collected and processed, its timeliness and availability and the interest and pressure that the users can generate. The situation of each of these variables has varied at different times in the United Republic of Tanzania.

10. At independence in 1961, published census figures were available only from a partial census taken during 1957. Little critical appraisal was made of these figures by the Government because there were other priorities and concerns. Even the World Bank mission did not list the scarcity of demographic data as a problem. A half dozen articles appeared in scholarly journals but these were not available in Tanganyika. Final results of the 1957 census were not published until 1963 but only a few demographers expressed any concern about its accuracy.

11. However, a notable accomplishment of this period was the compilation of the population distribution map of East Africa (AAAG 1964) by Professor Philip Porter of the University of Minnesota. By coincidence, the author of this paper was in the United States and could endorse the value of Porter's patience and painstaking effort. As it turned out, his work was invaluable. The field maps from the 1957 census, which had been kept in the custody of the Ministry of Lands, Housing and Urban Development were destroyed in the early 1960s because it was thought that they were worthless. The field maps would have been invaluable for rendering clues about changing patterns of population redistribution and land use. Fortunately, as a result of the publication of Porter's map, it was possible to make some comparison between the 1957 and the 1967 population distribution of the United Republic of Tanzania. The 1967 maps of enumeration areas (EA) are relatively well preserved but unfortunately the extremely valuable EA books were ordered to be destroyed. The EA books contained a wealth of information about development and infrastructure within the enumeration areas. The EA books should have at least been returned to the region.

12. As the Government of the United Republic of Tanzania began to take on a more important role in planning for the development of the country, foundations were laid for the establishment of institutions and even a Ministry which would inevitably be confronted with population and demographic issues. In the preparation of first five-year plan, 1964-1969, the Ministry of Economic Affairs and Development Planning noted that there was need for improved population statistics. Although the efforts and resources that went into the 1967 census marked an end to the period of neglect, the value of population data is not yet fully appreciated.

13. The dedication of some staff members in the Bureau of Statistics to making the results public is commendable and is one of the chief factors responsible for making the 1967 census a success. The first user was the Ministry of Economic Affairs and Development Planning (DEVPLAN), which noted that the underestimates of annual population growth had distorted the preparation of the second five-year plan. DEVPLAN used the 1967 population for macro-planning.

14. However, while government ministries can mobilize resources and collect data, the interpretation of the mass of data is quite another story. No where has this been more true than in the field of population. Most of the data derived from the partial census conducted in 1957 were useless because there was no analysis or translation of this data in a form accessible to decision makers. For the 1967 census analysis, a variety of skills were needed and a multi-disciplinary approach was required because of the range of subject. CBS itself had other pressing data-gathering activities and so the transformation of the 1967 census data into information was delegated to the University of Dar es Salaam and coordinated at BRALUP. This had a profound impact on the use of the census material, for it made the information available to a much larger body of users.

THE UNIVERSITY AS A PRODUCER AND USER

15. The University of Dar-es-Salaam was the main user of the data from the 1967 census. Indeed, some of the early works at the University were really an extension of the census work and included a survey of administrative boundary changes between 1957 and 1967 for intercensal comparison (RN 3), and the calculation of population density in the United Republic of Tanzania (RN 5b), all by I.D. Thomas. Claeson and Egero were about to process unpublished material from the census for a study on the movement of population into towns (RN 11).

16. The access to census data accorded quite freely by CBS and the knowledge of the data gathered by the University geographers during the preparation of the census led them to initiate other studies, particularly on the relationship of population to resources. Once again the Thomases attempted to produce comparative population data within broad physiographic zones. Subsequently, research led to the focus of land use and population in the Ulugurus (Thomas, Datoo) and the Northern Pare (Thomas). Morre, working with minimum supporting data, produced a carrying-capacity statement for all the districts of the United Republic of Tanzania. This was followed by Conyers' fundamental compilation, which indexed ecologicals, economic and population factors relevant to agricultural potential. At still another level, studies were generated which examined the relationships between population and social services, including health facilities (Thomas, Mascarenhas). This work initiated collaboration between the Ministry of Health and BRALUP.

17. All these studies, except the one on movements to towns by Claeson and Egero, were supported by the University, the Rockefeller Foundation, SIDA and other grants. Therefore, the statement found in a recent report that

> ... few population activities were carried out by BRALUP in the early years until the Demographic Unit was established in 1969 as a semi-autonoumous body within BRALUP ... 1/

1/ UNFPA.

is incorrect and could result in unnecessary and unwanted development. This statement contains two factual errors. First, population activities have always been a very important component of BRALUP activities. Secondly, the Demographic Unit did not come into existence until 1972. The use of data by University staff members sustained interest in population studies, led to the training of highlevel manpower and encouraged research. Two Tanzanian geographers, who would eventually head the department, worked on population-related doctoral theses. Their field work was modestly supported by BRALUP. Still others in the Department of Geography and BRALUP worked on population-related studies in the Uluguru and Pare Mountains and in villages in Tange, and on studies on migration in Arusha and Moshi.

Establishment of a Demographic Unit

18. The Demographic Unit was created within BRALUP for administrative and financial convenience only, not as the action of a separatist movement. Initially, its vitality was based on the wide interests of its core staff: an economist/demographer, an agricultural economist/demographer and a geographer with an interest in population.

19. The Population Council should be commended for generous support of the programme from its inception in 1972. The programme focused on demographic training and provided vitally needed staff. The number of skilled personnel trained is a tribute to the programme. In addition, the Population Council played an important role in recruiting and paying for the professional staff. However, an administrative and a financial convenience cannot be allowed to limit research interests or national manpower training. Throughout the six years of support from the Population Council, funds exceeded the number of students available. The dearth of students can easily be explained by the small numbers of students taking statistics. Yet there were economists, geographers, sociologists and even historians/librarians who might have considered demography as an option. Population and demography are not merely a matter of arithmetic and statistics; their socio-political aspects are more important.

20. Volume VI of the 1967 census was a joint publication of CBS and BRALUP funded by the Population Council. The 15 chapters examined the data from a socio-economic perspective and pointed out the limitations of the data and possible ways of improving its accuracy. Only two of the 13 chapter authors were not members of the University. Eleven of the 15 chapters were written by University staff members, mainly by BRALUP staff. The only Tanzanian author was responsible for two chapters. The volume is widely used as a general reference work. If this co-operation was so fruitful a decade ago, there is every reason to be optimistic about the interpretation of the 1978 census.

Other aspects of population studies

21. To balance demographic research and population studies in BRALUP, a number of population studies were initiated outside the framework of the Demographic Unit. Some studies were commissioned by government ministries. These studies were supported by the Rockefeller Foundation (until 1976), SIDA, the Government of the United Republic of Tanzania and ILO. Mention has already been made of the study by Thomas and Mascarenhas which tested the effectiveness of health facilities in relation to the population distribution. This study had an impact on government policy. Other studies undertaken were on squatters in the neighbourhoods of Dar-es-Salaam (Sandberg/Mascarenhas/Curry, SP 74/1-74/b); Population movement to Dodoma, the capital designate (SP 75/2); Value of children in socio-economic development (BR 20.1); Population redistribution (RP 47); Population growth and agricultural change (Maro, RP 40); Migration and economic development south of Lake Victoria (Egero, RP 32); Population movement and the colonial economy of the United Republic of Tanzania (Egero, RP 35); Methodological study of population density (Rudengren, RP 7); Population and Conservation (Khurji, RP 18); Background to rural employment - study commissioned by ILO (Mascarenhas/Skutch). A study on the growth of Sumbawanga, a regional capital, is currently in progress.

22. The significance of these studies was that they drew the attention of decision makers to population in socio-economic or environmental terms. They were also designed to demonstrate the implication of government policies for future developments. These studies were of interest at the national, regional and district levels. Although they required only modest financial and manpower resources, they were timely and significant. They sustained interest in population while being accessible to non-demographers.

THE GOVERNMENT AS A USER

23. Material from the 1967 census came too late to serve as an input for macro-planning of the second five-year plan (1969-1974). However, during the mid-term review there was some use made of the growth rates and mortality figures. The support given by DEVPLAN to the proposed National Demographic Survey and to BRALUP activities is an example of the manner in which further interst in the topic was generated by the Government. In the preparatory phases of the third five-year plan (1975-1979) there was increasing evidence that demographic variables would be given their rightful consideration. The abolishment of DEVPLAN in 1974, the relative inexperience of the Prime Minister's Office in planning and the concern in the Ministry of Finance and Planning with finance rather than with planning, meant that there was little demand for information from the ministries on population variables. Furthermore, the Bureau of Statistics was bogged down with gathering data and was not large enough to simultaneously collect data and generate information.

24. Despite the existence of these stumbling blocks after 1974, a considerable amount of information was retrieved from past activities. The collaboration which existed between BRALUP and the Bureau of Statistics, investment in BRALUP for the purpose of widening the scope of demography, the linking of population to resources and the connexion between BRALUP and other institutions meant that there was a ready source of national and region-specific data that had been transformed into information and which could be used for regional planning. As a result of various ministries' (including the Ministries of Agriculture, Water, Energy and Minerals Health and National Education) support of and interest in BRALUP activities, it was possible to incorporate a considerable amount of population and demographic material in studies undertaken in BRALUP. Consequently, nearly all the Rural Integrated Development Plans (RIDEPs) prepared by various donor countries and agencies relied on BRALUP for their basic population data.

THE NATIONAL DEMOGRAPHIC SURVEY

25. The National Demographic Survey (NDS) was undertaken because it has become obvious to decision makers that plan targets could be significantly distorted by poor population data. For example, the second five-year plan had assumed 2.5 per cent per annum in contrast to the actual growth rate of 2.7 per cent revealed by the 1967 Census. This meant that on the basis of figures from the 1957 census about 1.4 million people had not been taken into account. It was further realized in DEVPLAN that before more reliable data could be obtained,there would be a long delay between the first national census of 1967 and the census scheduled for 1978. Research interests of the professional demographers at the University of Dar-es-Salaam and the views in the Central Bureau of Statistics began to indicate both the necessity and the viability of holding a demographic survey. Indeed, a demographic survey offers a better opportunity for estimating certain population parameters than does a census.

26. The specific aims of NDS were to study the levels of fertility and mortality and their differentials by region. The cost of carrying out NDS has already been indicated. Five official volumes, consisting of a book on methodology and four volumes of data, were produced by late 1976. These volumes, edited by Henin and others and funded by Population Council and SIDA, represent a major source of demographic data.

27. So far NDS has not had as much impact as the 1967 national census or even the impact that had been anticipated of it. In 1979, during an evaluation of the health sector, officials from six regional health offices were informally asked whether they had used results from NDS. The answer was negative. Similarly, during a workshop on women and development, very few participants, including three women doctors, had actually consulted any of the volumes. One criticism levelled against

the volumes is that they seem to be designed for the use of professional demographers and statisticians. In an age when computers can churn voluminous amounts of tables, there is perhaps reason to take special care in generating data which is primarily of general interest. Presentation of those data which are of specific interest to the professional demographers could then follow. This is not to underplay the necessity for sophisticated skills to generate meaningful data. Similarly, until now analysis of demographic data has often been undertaken by academics but the concern of some of them for practical application of their findings has not been given priority. Such concern need not necessarily mean a lowering of academic standards.

28. There are a few other aspects of the NDS which perhaps explain why the impact of the survey fell short of anticipation. The abolishment of the Ministry of Planning in 1974 was only one reason. Another is the occurence of events which have disturbed the rhythm of development. During the last few years authorities have been preoccupied with matters which had not been foreseen: the food shortages of 1973-1974, the villagization programme, the invasion of the United Republic of Tanzania by neighbouring forces and the financial problems currently being experienced. Finally, there is the problem of timing: the NDS results appeared too close to the scheduled data of the census planned for 1977.

NEED FOR DIVISION OF RESPONSIBILITY AND COLLABORATIVE RESEARCH

29. To a large extent there is a pressing need to review the responsibilities of many of the institutions. In the early 1960s and 1970s, the institutions were small and their activities were not well defined. At the outset of the 1980s, it is important to take stock of the realities which exist. The University no longer has the country's only demographers; the Ministry of Finance and Planning, Ministry of Health and the Prime Minister's Office all have a basic staff with some demographic training. The University should welcome this development for it does permit more meaningful discussion and collaboration. The various Ministries with qualified personnel are in a better position to specify the types of research and, once conducted, to make use of the research.

30. However, the proliferation within ministries of mini-demographic units that are expected to carry out research and develop methodologies, will in the long run be counter-productive. Care should be taken not to vest the demographic units with more responsibilities than they can realistically shoulder. For instance, a demographic unit in the Prime Minister's Office would probably be more effective if it co-ordinated and provided ready services for the region rather than conducted research.

DATA GATHERING AND DATA USE

31. In the late 1960s, a great deal of effort went into the collection of data. To an extent this was justified then and will continue to be justified. However, far more effort will have to be given in the future to data processing and interpretation. In the last population census, less than 5 per cent of funds was spent on analysis. There are good reasons for increasing such support, the most obvious being to prevent wastage. While there is a great deal of enthusiasm for collecting data and even for expanding data-gathering to peripheral fields, the fact remains that only a fraction of the data collected is ever used.

32. One must also look with apprehension at the manner in which African scholars and academics are gradually assuming the role of mere data gatherers. Seldom does one hear of support for writing or rewriting. More often the completion of the Ph.D. is followed by the collection of new data for yet another study. In contrast, there is an example of a person from the developed world working for BRALUP who was supported by funds from four sources, only one of which was related to data-gathering.

33. While there is much merit in using data collected during national surveys for undergraduate or postgraduate theses, it is quite another matter to inordinately inflate the size of the sample which is required even for a doctoral degree. Not only can this increase the cost of gathering data but when the questions reply are so similar there is a danger of resistance from respondents, to the extent of possibly giving wrong information. It is also important to be sensitive to the time needed to interview people in the rural areas and low-income workers.

34. One neglected aspect of population studies is migration. Of the three factors which determine population (birth, deaths and migration), there has been a heavy emphasis on the first two. Migration study poses several problems to demographers and is therefore a neglected field. In the United Republic of Tanzania, more studies were done on migration in the 1950s than in recent decades. Studies relating migration to resources and development strategies are probably less speculative than projections of future fertility or mortality rates. Thus, while it is almost inevitable that the exploitation of the United Republic of Tanzania's mineral reources in the south will lead to population movements, it is less certain to what extent the fertility will increase or decline in two or three decades.

35. The data-gathering processes in the United Republic of Tanzania have placed very limited emphasis on vital registration as a source of fertility, mortality and nuptiality data. The United Republic of Tanzania has not yet evolved a system of universal and compulsory registration of vital events. This explains why estimates of fertility and mortality have hitherto been derived from population census and sample survey data. Although useful, these sources are secondary; vital registration data are the best inputs in the estimation of these basic demographic variables. By implication, subsequent investments in population data-gathering in the United Republic of Tanzania should give utmost consideration to vital registration statistics.

CONCLUSION

36. The review of government investments in population data collection has been limited to the 1967 census and the 1973 national demographic survey. It is not easy to extend the assessment to the pre-independence censuses mainly because most of the costs incurred were hidden in native authority votes. Nor is it worthwhile to discuss the 1978 population census in detail because the results are still being processed for publication. Both the 1967 census and the 1973 demographic sample survey, however, provide useful insight into the extent of government concern for and investments in population data. Apart from the national Government of the United Republic of Tanzania, the University has also played a vital role in data collection through graduate student research programmes and *ad hoc* surveys.

37. One important limitation of the population data system in the United Republic of Tanzania is the unduly long time lag between the conducting of censuses and the publication of their results. The results of the 1978 census has not yet been published. This, of course, sets a limit on data use and has a tendency to render aspects of the information collected obsolete by the time it is made available for use. Nevertheless, government plans have benefited from population data inputs even though projections have suffered from lack of reliable population parameters mainly because a system of UKL registration has yet to be adapted to national needs. With continued interest in population activities, the country now has a demographic unit and the number of newly trained experts in the field of population studies in increasing rapidity. All these efforts are bound to improve the collection of population data as well as facilitate the prompt processing, analysis and interpretation of such data to satisfy the demands of consumers.

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POPULATION AND FAMILY LIFE EDUCATION IN INTEGRATED RURAL DEVELOPMENT*

INTRODUCTION

1. In the last few decades there has been an increasingly widespread realization of the importance of the human factor in economic and social development. This is particularly true in the case of the developing countries since many of their socio-economic problems stem from increasing pressure of the population on the limited economic and mainly agricultural resources at their disposal. Unfortunately the majority of these populations live in rural areas, derive their living mainly from subsistence agriculture, and represent the most disadvantaged group in their societies.

2. As the dynamics and consequences of population growth are essentially related to rural development as a whole, serious attention should be given to population problems in these areas. The concept of integrated rural development presupposes the recognition of a rural-urban continuum and, by implication, that the rural area cannot be considered in isolation but rather in relation to its urban counterpart. In this sense, problems of rural-urban migration, agricultural and industrial development can be tackled and development must be harmonized in such a manner that both sectors complement each other. Integrated rural development requires an integrated interdisciplinary approach. The very nature and size of the problem of promoting economic and social progress in the rural areas requires that action be taken on several fronts simultaneously.

3. The Tanzanian approach to integrated rural development is based on the concepts of social equality, ujamaa, (collective, cooperative effort), self-reliance, economic and social transformation and intra-African economic integration. The objectives of this strategy have been ultimately to provide the citizens of the United Republic of Tanzania with adequate food, water, employment and income, education and training, health services and social security within the limits of available resources. In this way rural development has been chosen as the central focus of national development.

4. It is, therefore, within this framework that the Population/Family Life Education Project functions in the United Republic of Tanzania. The Government considers that any effort to educate its rural population in population/family life education matters should be an integral part of its many social and economic activities aimed at rural development and family well-being. Therefore it is believed that population and family life education should be introduced into all relevant programmes reaching rural families and communities.

5. In this connection, population and family life education should be understood to aim at creating an understanding of the relevance of demographic factors in the overall decision-making process of the family. Thus, it can improve family well-being and the understanding of the critical role demographic factors play in influencing the balance between family needs and available resources.

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POPULATION EDUCATION

6. A recent UNESCO report 1/ defines population education as " educational process designed to help people understand the nature - and particularly the causes and consequences - of population events. This education is directed at people as individuals, at members of groups as decision-makers, or potential decision-makers, within their families, as citizens within a community, as leaders within a society and as policy-makers within a nation. The sum of their decision shapes the nature of the population forces - fertility, mortality, migration - which operate within a society and which then affect other social, political and economic forces".

7. This definition has been worded with considerable care and attention to detail. All too often in the past population education has been confused with family planning per se. Now it can be seen that population education is in fact a much broader concept which can help people understand the implications of population factors and their effect on both the macro and micro levels of society.

8. The World Population Conference 2/ held in Bucharest in 1974 examined population questions within a political context. The major issue of the debate was the relationship between population and development. Widely differing views were expressed. Some felt that high population growth was the over-riding factor impeding socio-economic development. Others felt that a wide range of measures necessary for such development should include those aimed at a decline in fertility. At the end of the Conference, however, the delegates agreed on the "World Population Plan of Action". Among other things the Plan states that: "The promotion of development and the improvement of the quality of life require co-ordination of action in all socio-economic fields including that of population .

9. Inherent in this statement is the basic necessity for, and importance of, the multi-disciplinary approach already described as the strategy used in integrated rural development. The Conference also emphasized that "the consideration of population problems cannot be reduced to the analysis of population trends only. It must be borne in mind that the present situation of the developing countries originates in the unequal processes of socio-economic development which have divided people since the beginning of the modern era". It will be recalled, that the first concept in the Tanzanian approach to integrated rural development is social equality.

1/ Population Education - A contemporary concern (1978), UNESCO.

2/ World Population Conference Report, 1974, Bucharest

10. Also in the Plan of Action, the Conference urged the need for Population Education in the following way:

> "Educational institutions in all countries should be encouraged to expand their curricula to include a study of population dynamics and policies including family life, responsibile parenthood and the relation of population dynamics to socio-economic development and to international relations".

The word "Curricula", however, in the above recommendation implies a somewhat narrow concept. In actual fact, the Plan suggested that all settings - in and out of school, should be included. It also recommended the dissemination of such education to "both rural and urban audiences composed of labour, community and other social leaders", as well as "senior government leaders" and "the general public". Judgements at the Conference varied as to the meaning and the impact of population events. It was clear, however, that all people and nations face problems which have population components, hence the recommendation for widespread population education as an integral part of socio-economic development.

11. The world Population Plan also gave specific recognition to the rights of women. "Women have the right to complete integration in the development process particularly by means of an equal access to education and equal participation in social, economic, cultural and political life". It can be said that over the last few decades in Africa and the developing world, there has been a gradual increase in the participation of women in social, economic, cultural and political life. But can it really be said that the traditional rural woman in Africa has experienced any marked change in her way of life or any lessening of her traditional work load ? In some areas, there has been some improvement but, on the whole, the situation of these rural women remains much the same today as it always was.

12. The Director-General of FAO stated in the FAO Conference in November 1979 that if, as predicted, the world population reached 6 million by the turn of the century, there would have be an increase in food production by the developing countries of 5 per cent per annum. If this were not done, he said, the alternative would be 250 million starving people. This required increase in food production would have to be borne in large measure by the already over-loaded rural woman in the absence of any major technological breakthrough. Integrated rural development aims at increasing the participation of women in two ways.

(i) the economic welfare of the rural family can be improved by utilizing the largely untapped source of female energy and intellect in more productive fields;

(ii) the raising of the status of women must be an objective in its own right both at the policy-making level, and equally important, at the village level itself.

13. Village women can be educated not only in the skills but in the attitudes for nation-building - all of which is closely linked to economic growth and to improving the quality of life in villages. When women are educated - and motivated - for more diversified participation in rural life both they and their menfolk might be less inclined to leave the rural areas for the urban areas. The improvement in the quality of life for rural families can be achieved through the multi-sectoral integrated approach to rural development. Inherent in this strategy is the education of the people in all aspects of their lives as individuals, families and communities by the village leaders and extension workers.

DECISION-MAKING

14. The UNESCO definition of Population Education emphasizes that the target groups at all levels of society are the decision-makers. We in the Population and Family Life Education Project see the rural population as a disadvantaged sector requiring all our efforts and assistance to improve its standard of living. Frequently, however, it is essential to direct efforts in the first place towards decision-makers at national and policy-making levels. If these politicians, senior government officials, managers and providers of services are not motivated to include communities in the planning process and to seek an integrated development strategy by co-operating with their colleagues from other sectors, village-level efforts will have little chance of success. There are of course, at the national level, certain political, social and economic factors which influence population-related decisions. African policy-makers now recognize the relationship between socio-economic development and population trends. Some also take into account the fact that the rate of population growth is more important than the actual size of population.

15. A multi-sectoral population education approach is recognized by only some African countries as a useful and effective strategy although they are concerned with relatively high population growth rates, infant mortality rates, pre-school child mortality rates and maternal morbidity and mortality. The United Republic of Tanzania, however, is a notable exception in its understanding of the need for education of both the rural and urban populations.

16. Decisions made at the community level, can be an important factor in slowing down the populatinn growth rate. What of population-related decisions made by individuals? How many husbands and wives in the rural areas can discuss together such issues as child-spacing? We are apt to refer to "over all" or "joint" decision making as an already existent feature of family life or one which can be readily achieved. To be realistic, it is fair to say that, in most cases, owing to the inequity referred to earlier between men and women and to the presence of cultural traditions and taboos, the options open to individual decision-makers are in actual fact comapratively limited. Family group decision-making processes present less difficulty within the extended African

family system. Such a family decision may lead to migration by a male family head to a city, to another region or perhaps, to another country and may provide the family in the rural area with increased cash income, and resultant increased material well-being. It may also decrease family size. It may, however, increase the work load and lay greater stress on the woman in the family who remains behind in the rural area and this has been known to cause the disruption of the family as a stabilishing basic unit of society. It is, therefore, questionable whether migration of the male head of the family really benefits the family structure as a whole and the rural mother in particular.

17. These different levels of decision-making are all inter-related. The decision-making process at the national level is frequently affected by decisions taken at community and family levels. Similarly the latter can have a considerable impact on national well-being, socio-economic development and progress. For example, when the population growth rate is high, the problem facing the policy makers is how to effect the rapid expansion of health, education and welfare services. Given the limited economic resources of the average developing country, agricultural and industrial development may have to be limited as a result. The lack, or inadequacy, of these basic services directly affects individual and community options and decisions. A predominantly illiterate community may be totally unaware that there are alternatives to high fertility. Inadequate educational facilities in the rural areas may force young people to migrate to towns in order to complete their schooling. Similarly, lack of employment opportunities in rural areas tends to encourage rural-urban migration.

Decision making, then, involves a host of political, social and economic factors. Perhaps the most complex problem of all is that of social customs, traditions and beliefs, which are more likely to limit rather than extend the range of options open to decision-making and, therefore, must be carefully considered in the implementation of any population education programme.

FAMILY LIFE EDUCATION

18. Although individuals and families have been mentioned in this paper we have been viewing the subject of population education at the macro level. In family life education, the focus is on the micro level. Population education deals with the relations between individual, family, community and nation and with the ways that population phenomena impinge upon the welfare of all these units of society. Family life education deals with intra - family relationships and the family's social and economic interactions.

19. The family is without question the basic social unit. It satisfies the basic physical needs of its members - shelter, clothing, food. It also satisfies the basic psychological requirements - security, acceptance, a feeling of being wanted. It is a channel through which traditional ways of behaviour and cultural norms are transmitted from one generation to the next. Thus, children who have grown up in such a family unit become adults who reflect the social education so received. In addition, the traditional African extended family acts as a social security medium, providing all types of assistance to its members.

20. The strong ties of the rural traditional society have, however, been lessened to some extent by rural-urban migration. Children born in the urban sector or those who leave their rural families at an earlier age than formerly to go to cities are denied much of this traditional social training. Parents who have moved to cities from rural areas in search of a better way of life frequently find it difficult to adjust to the urban environment. Difficult living conditions may lead to family stress, child neglect or disintegration of the family unit itself. As a result, the family which could provide physical and psychological security in the rural area may find its very existence threatened in an urban setting.

21. The objectives of family life education have been described as the following:

a. to explain the health and welfare value of child spacing to family members;

b. to explain the biological and social aspects of sex and marriage with a view to improving marital relations and family health;

c. to discuss the laws and customs relating to marriage, inheritance and adoption within the community;

d. to discuss the types and prevention of sexually transmitted diseases and their relationship to fertility;

e. to exercise responsible parenthood by example.

22. All these objectives aim at assisting individual family members to play their roles effectively. Education in this context must ideally begin close to the individual's own experience. What statistics reveal is meaningless to poor and illiterate people. What convinces them ideally are actual case histories. The conseptual framework must focus on the family, life cycle events, family functions and inter-relationships. Equally important are issues like education and employment. Child care, both ante-natal and post-natal, family budgeting, personal as well as environmental hygiene and education for better nutrition - all have to be included. Children are of particular importance and must be viewed as members of society with legal rights and not simply as economic assets and a potential labour force.

23. The above programme content is, of course, vastly different from those of the early family planning, IEC and IEM activities of the 1950s and 1960s. At that time, emphasis was on the control of frequent, unspaced births by the provision of modern contraceptive techniques. Family planning was all too often presented as a panacea for all the problems which afflicted people at the individual, family, community and national levels as well as the only way to rapid development. Since that time, horizons have broadened, however, and family planning is seen as a component, and a most important one, of family life education.

24. How then can family planning be defined today in the African context? The practice, as perceived in Africa is that of child-spacing - an integral service in maternal and child health programmes. It is essentially family-oriented and includes provision for the correction of infertility and sub-fecundity - a service which the opponents of family planning frequently choose to ignore. Misconceptions and misinformation abound to this day and are repeated again and again leaving one to question whether it is easier to spread inaccurate than accurate information. The conviction shown by those who oppose child-spacing appears sometime to be unshakeable. They will state emphatically that among other benefits, a high population growth rate is a positive force in that larger numbers of people provide an adequate labour force which provides the infrastructure for more rapid economic development.

25. There are suspicions of the motives of the developed countries; it is felt that the real problem is population distribution rather than population numbers; that children are to be viewed as an investment for old age and so on, The mere fact that these long-standing views are still expressed is an indication of the very real need for family life education. It is often forgotten that family planning is, in essence, conception control and not birth control. Neither is it population control - it should be viewed as an effective tool, when properly understood, in population programmes.

26. Family planning is concerned, as a part of family life education, with the enhancement of the quality of life. It seeks to achieve this by informing education and motivating people into accepting and practicing family planning and making child-spacing services available. Family life education presents, therefore, a wide spectrum of activities all of which aim at bringing about a basic change of attitudes.

27. Since independence, there have been many changes in traditional African family life. The extended family system is gradually breaking up and semi-nuclear families with some kind of loose links with rural relatives are emerging in the urban areas. Some socilogists believe that the nuclear family leads to the creation of conditions necessary for socio-economic development. Others maintain that the dispersal of family members curtainls or destroys the family functioning as a production unit where all its members are engages on the farm. The truth

of the matter is that some members of rural families will continue to migrate to urban area to migrate to urban areas whatever improvement in facilities and standard of living takes place at the village level. Those migrants should not, however, be viewed as totally lost to the family unit. Earlier in this paper it was stated that integrated rural development was viewed as a continuum with development of the urban s sector. This is apparent in the Population and Family Life Education Project where we view industrial workers, trained in family welfare education in the worker's education programmes, as possible catalysts of social change when they return to their families in the rural areas with new concept of better family living.

METHODS OF INTRODUCING POPULATION CONCEPTS

28. The question now arises as to how population concepts can be introduced into formal educational systems. Most of these have, in the past, been teacher-oriented rather than learner-oriented. It is generally accepted that Population and Family Life Education must be learner-oriented. The focus which has to be on learner-evaluation, decision-making and response will inevitably represent a significant change in emphasis.

29. Not only will a change in emphasis have to be considered within the institutional context but recognition must be given to the strategy of non-formal education for specific groups. It is unfortunate that non-formal education is a negative expression as there are always disadvantages in defining negatives. There are, however, certain positive connotations in that non-formal education refers to all organised and systematic activity outside the conventional, institutionalized, chronologically graded and hierarchically structured school, college or university system. It carries implications about a change in teaching method, is aimed at a specific group in society and is concerned with improving living conditions.

30. The last item is most important both in moral, human, and development terms. The United Nations Economic Commission for Africa has a more apt definition of non-formal education:

> "Non-formal education is a loosely structured educational and training activity not located within the highly structured formal educational and occupational performance. It is a system geared toward selective clienteles and intended to achieve specific educational objectives. It complements activities within the formal educational training system by providing extra-curricula learning experiences, by offering opportunities for continuing education and by supplying the educational base for the implementation of certain development-oriented projects such as integrated rural development schemes".

31. From the above definition it can be readily understood that non-formal education can function as a means of providing greater educational opportunities for skills-acquisition and for up-grading the disadvantaged sections or groups of men, women and out-of-school youth in the rural areas. Urban workers can also benefit in that non-formal education can provide training for the work force that will improve efficiency and extend facilities for employment promotion.

32. Introducing new components into any curriculum, however, presents difficulties. The Population and Family Life Education Project in the United Republic of Tanzania is based in three regions - Morogoro, Kilimanjaro and Mara. Each region has a relevant institution - Morogoro has the Faculty of Agriculture; Kilimanjaro has Moshi Cooperative College; Mara has Buhare Home Economics College. All these institutions have already overloaded curricula. The risk of changing the curriculum and departing from tradition and the difficulty in finding and/or training capable teachers are all problems which must be resolved.

33. Population education is multi-disciplinary in nature, therefore, the teaching staff need to adopt a complex approach towards it and combine their efforts. For example, it was found in the course of the review, in the Morogoro Region, that the tutors in the College of National Education were all very positive in their recognition of the importance of introducing population concepts but they expressed doubts as to what strategy might be adopted for the integration of the subject and about the inevitable resultant increase in their work load if this was to be carried out efficiently.

34. Obviously, there is no one basic strategy. The approach used must be one adapted to the country concerned. It is for this reason that the Population and Family Life Education Project will concentrate on three main target groups in the course of the 1980s in addition to implementing the second phase of ILO training activities. These will be resident tutors in adult education teams, the teaching staff of village management technicians and the teaching staff of twelve Ministry of Agriculture Training Institutes (MATIS). During their workshops, these three groups will receive some basic training in population education and be asked to consider which of the following four basic strategies will be suitable, or can be adapted to their individual curriculum and, how non-formal education techniques can be used at village level. Similarly, those representing the organised sector will concentrate on the methodology of integrating family welfare education into workers' education programmes.

35. Although none of the following four strategies is perfect and all have advantages and disadvantages, they nevertheless provide, some sorts of guidelines.

The integration process can take the form of:

(i) A separate interdisciplinary course in population education;
(ii) The addition of a population unit of study within a relevant course;
(iii) The inclusion of population concepts into existing topics;
(iv) The provision of population education training and communication materials to teachers who are left to use them as and when they consider appropriate.

36. A separate interdisciplinary course on population and interrelated problems focusing on the various socio-economic aspects of integrated rural development provides a basic understanding of the concepts and dynamics of population processes at family, community, national and international levels. This strategy allows for a carefully planned syllabus, avoids unnecessary overlapping and is the clear responsibility of one teacher the effectiveness of whose teaching can be easily evaluated. The disadvantage of this separate course is the time it will take in an already overloaded syllabus and the difficulty in finding one teacher with all the training and knowledge which the multidisciplinary nature of the subject requires.

37. A specific population unit can be prepared in module from and each teacher selects the concepts closely related to the subject he or she already teaches. This methodhas the advantage of stimulating the learner's interest in the background subject. The disadvantages of this method include the fact that a large number of teachers have to be trained in population education, evaluation of the quality of teaching is difficult and since population education units are fairly long the teaching programmes will take longer unless an existing unit is removed or shortened.

38. The inclusion of population education into existing topics ensures that the multidisciplinary nature of the subject is retained. No additional time factor is involved as there can be numerous small reductions in the amount of time spent on other topics. This is a strategy whereby the whole curriculum can be developed and improved. Again, however, we face the constraints of a large number of teachers being involved, the resultant difficulty of evaluating the quality of the teaching and, most important of all, the population facts and concepts, although related to other subjects, may not be related in the learner's mind to each other.

39. The training of teachers only has the main advantage that it is expected to produce a well-trained and highly-motivated group who can undergo periodic re-training and evaluation. It is recognized that this is an expensive method of training, that the quality of training must be of a high standard, and, therefore, attractive to the teachers, and that the number of receive the training will be relatively small, at least initially.

40. It has already been mentioned that the Population and Family Life Education Project has three workshops for target trainer groups due to take place in 1980. Whatever strategy each group chooses to adopt in the methodology of the integration of population education, it would seem only logical that a first essential should be a highly trained group of multi-disciplinary trainers. These, in turn, together with trained Project staff might form a mobile training team in the three regions of the Project.

41. Whatever strategy is adopted in the final analysis, the important criteria should be flexibility of teaching methodology and suitability of curriculum content to the learners concerned. We, in the FAO Tanzanian Project, will be largely dependent on the results of the household survey being carried out at present in the three regions for the consequent development of suitable communications material. Thereafter, it should be possible to train trainers not only equipped with generalized knowledge on population concepts but with information particularly relevant to the cultural and psychological reality of the rural people of Tanzania.

CONCLUSION

42. FAO was the first UN specialized agency seriously concerned with world population growth because of its effects on the balance between food and people. The FAO Conference of 1967 also recommended an integrated approach in reaching families with information about the relationships between family, resources, needs, goals and size through existing national programmes. In 1973 the FAO Conference approved an expanded programme for population activities with the objective of strengthening national development policies and programmes by integrating population aspects in education, training, extension and other programmes reaching rural communities. Since that time there has been increasing participation by UN Agencies, the World Bank and some bi-lateral aid agencies in linking population activities with rural development. The World Population Plan of Action of 1974 emphasized that the principal aim of social, economic and cultural development, of which population goals and policies are integral parts, is to improve levels of living and the quality of life of the people.

43. Population education has been defined as an educational process designed to help people understand the implications of population phenomena for individuals, family, community, global and national well-being. It is based on a growing body of knowledge concerning these phenomena and their relationships with other key factors of economic and social development. Population education encompasses many variable components and approaches which may be selectively adapted to emphasize these specific aspects and relationships which are best suited for incorporation into different training courses and programmes - both formal and non-formal at different levels.

44. Population education is not synonymous with family planning as it encompasses a wider concept and scope. It deals with the broader social and economic aspects of the problems likely to arise from uncontrolled and unchecked births or migration and suggests a wide range of means and ways to influence these trends. Family planning on the other hand, concerns itself primarily with the provision of direct services to assist individuals and couples to achieve desired reproductive goals through the prevention of too frequent pregnancies.

45. Population education attempts to evolve heuristic approaches of communication best suited to different environmental situations and to deal with specific cultural, psychological, social and economic considerations associated with population increase.

46. Population education is not by itself a panacea for all the ills of a country. It can, however, serve as an important and effective instrument to facilitate the broader measures being undertaken to reduce poverty, malnutrition and under-employment. As part of an integrated approach and strategy to solve socio-economic problems, population planning and integration should thus be integrated into the entire complex of social, economic, educational, health and nutrition programmes.

1. Statement by Mr. A.T. Kabbah
Resident Representative of the
United Nations Development Programme
Dar-es-Salaam

Your Excellency,

Distinguished Seminar Participants,

Ladies and Gentlemen;

It is my privilege to be here with you today at this opening session of the National Seminar on Population and Development. I am delighted to see so many delegates from the Government of Tanzania, including two from Zanzibar. Also, I extend a warm welcome to those government representatives present from Kenya, Uganda, Zambia and Mozambique as well as to many colleagues from the United Nations family and other international organizations. My remarks today will be easy and brief, for my main purpose is to introduce to you our distinguished opening speaker, the Honourable Professor K. Malima, Minister of State for Development Planning and Economic Affairs. We are particularly honoured that he has so generously accepted to give the keynote speech at this seminar, in view of his many and pressing responsibilities since taking up his important new position, and I perceive the Minister's presence here today as an indication of the importance with which Tanzania regards questions relating to population and development.

In my view, Professor Malima is excellently placed to address this issue. First of all, he comes from an academic background and as an African economist is well equipped to analyse the complex interrelationships between economic development and population. Secondly, as a member of the Central Committee of the CCM, Professor Malima is well placed to monitor the political pulse of the country with respect to population. Thirdly, his recent ministerial appointment gives Professor Malima a technical perspective to bring to bear on population matters, specifically on how better to integrate demographic variables into the planning process.

We all know that in many African countries, population has been a contentious issue, and rightly so, for it has many ramifications from the psychological and the social to the economic and the political. We cannot just pretend that it is an uncontroversial issue with consensus about what to do about it, but neither can we brush it aside as being irrelevant to the situation of African countries.

It might be instructive to take note of the fact that the 'heat' often generated about population questions is a result of wrong, incomplete or ambiguous terminology. Population is not only related to questions of size; even when we do speak of measuring or influencing the size of the population we should not jump to the conclusion that this is effected simply by limiting fertility,for we very well know that mortality is an equally important determinant. Furthermore, we must also remember that questions of migration and population movement are critical to any analysis of the population situation. I mention this in order that you might focus your discussions very broadly at this seminar on how population variables impinge on development and how best they can be taken into account to improve the planning process.

It is true that, for a number of reasons, many African countries have no population policy as such. In other words, there is often no single coherent body of statements or legislation that one can point to. Nevertheless, most African countries do have a policy on mortality: successive development plans routinely contain policies and programmes to raise life expectancy and to bring down the unacceptably high level of infant and child morbidity and mortality. Furthermore, no one will argue with the need to know in detail the structure and characteristics of the population as a prerequisite for sound planning, and here Tanzania can point with pride to a long tradition of census taking and demographic surveys. Finally, much emphasis is being placed in the developing world on the balance of the rural versus the urban population, how to cope with urbanization and how to organise the rural population to best mobilize them for development. Most African countries have adopted explicit policies in this regard, and the central importance of Tanzania's vigorous villagization policy is ample evidence that there is great concern in this country with the optimum distribution of the population to achieve socially-conceived development objectives that will benefit first and foremost the rural population. Therefore, no matter under what heading it comes, in my view, Tanzania is, like many other African countries, addressing the population issue in this broad sense.

A word now about the sponsors of this seminar. Both the Economic Commission for Africa, through its Population Division, and the International Labour Organization through its Regional Team on Labour and Population have a long standing interest and involvement in organizing events of this kind as a way of increasing the level of awareness among policy makers and planners about population questions. I will leave it to the representatives from the ECA and the ILO here today to go into more depth on their mandate in this regard. As the representative of UNFPA in Tanzania, the funding agency of this seminar, let me state that UNFPA is responding to a number of priority areas identified by the government for assistance in the population field, out of which a broad-based programme for Tanzania is beginning to emerge. I will leave it to the UNFPA Co-ordinator to speak more about this, but let me just mention that seminars such as this one, which aim to highlight the inter-relationships between population and development, lie at the very heart of UNFPA's mandate.

And now without more ado, I should like to hand over to the Honourable Professor Malima, who will, I am sure, give us the benefit of some of his ideas so that we may be well guided in our discussions on this important occasion.

Thank you

2. Speech by Prof. K.A. Malima, Minister of State for Planning and Economic Affairs at the Opening of the National Seminar on Population and Development in Arusha, 18 February 1980

Mr. Chairman, Distinguished Delegates, Ladies and Gentlemen,

It gives me a great deal of pleasure, to have been availed of this opportunity of officially opening this important National Seminar on Population and Development. I would first of all like, on behalf of the Party, Government and People of the United Republic of Tanzania, to express my appreciation to the United Nations Economic Commission for Africa, the International Labour Organization and the United Nations Fund for Population Activities, for availing our country yet another opportunity to deliberate and reflect on the interrelationships between socio-economic and demographic factors, on the one hand, and economic development, on the other. I wish also to extend a very warm welcome to all the participants to Arusha. It is my earnest hope that every one of you will find the atmosphere and climatic conditions of this place comfortable enough to facilitate your work.

I had earlier on alluded to the fact that this country has been provided with yet another opportunity to deliberate on the issues of population and development, because this seminar is not the first of its kind to take place in Tanzania. In October 1974, a more-or-less similar seminar was organized in Tanga by the International Labour Organization, in collaboration with the Tanzanian Government, and again through generous financial assistance from the United Nations Fund for Population Activities. While the earlier seminar emphasised the importance of stimulating widespread consciousness on the positive contribution by trade unions through worker's education in the field of population and economic and social development, the seminar I am inaugurating today will concentrate on the interrelationships between socio-economic and demographic factors and development planning. This is admittedly a difference, if one can call it such, primarily of emphasis.

During your week-long seminar you will have time to examine, among other things, such questions like the demographic situation of Tanzania, the relationship between population and planning, population and socio-economic development, and population, labour force participation and manpower planning. These are all issues of great importance to our current efforts of planning economic development in Tanzania. I am sure you will give all those issues your utmost attention, and I personally look forward to your final conclusions and recommendations.

As you very well know, we in Tanzania do not have a population problem as such. This is, however, only true with respect to the people to land ratio, and in any case also only for the time being. That is, in relation to many developing countries, the population density in Tanzania is rather low, about 18 people per square kilometre. When one compares such a ratio of Tanzania with that of Bangladesh of about 558, India 138, Rwanda 161, and Burundi 135, it is clear that the population problem in Tanzania is relatively very much more manageable. Nevertheless, even with respect to people to land ratio, we cannot be obivious to two important facts. One is that, while the land area of Tanzania is more or less fixed, population has recently been increasing at about 3.0% per year. This implies that each year there are at least 500,000 more people in Tanzania than there were the year before. In ten years there would be at least 5 million more people, and in 20 years 10 million more. Thus, the population question is not going to remain a non-problem for too long. Secondly, almost 70% of Tanzania's population is concentrated in the Arusha-Moshi, the lake regions, the Southern highlands and the Coastal areas, which represents less than 40% of the country's land area. That means the areas which are highly suitable for human habitation are already densely populated by any standards.

Granting that, relatively speaking, Tanzania has still large stretches of land which can support human settlement, there are also the other considerations which require us to pay some attention to population questions.

As underlined by our policy of socialism and self-reliance, in Tanzania development must essentially mean liberation, not only from socio-political oppression but also from poverty, ignorance or illiteracy and disease. We have rightly emphasised that there can be no meaningful development, if the majority of the population are living in intolerable poverty, misery and squator, while a tiny minority lives in enormous wealth and splendour. Hence, one of the major tasks we have set for ourselves is to increase the lot and wellbeing of the majority of our people, including to provide them with a future they could look forward to with some assurance and security. We have also undertaken to wipe out illiteracy through universal primary education and adult literacy programmes, both as a means to a broad-based development and as an end itself in its effect of freeing people from the brutalizing warship of nature. Finally, we have decided to provide free medical and health services to the broad masses in order that they do not remain victims of some of the most debilitating diseases, which prevent them from exercising their rights and responsibilities as free citizens and effective producers.

We make no apologies for these noble objectives. But we must not also lose sight of the fact that a population that is growing at over 3% per annum, makes tha task of providing everyone with remunerative employment, free education and free medical services, relatively more difficult than with a population growing at 1.5%, per year. Similarly, if total production in the economy is growing at about 5%, per annum, then with an annual population growth rate of 3%, production per head will increase at 2%, per annum while with an annual population growth rate of 1.5% production per head would grow at 3.5%, per year. Thus, quite clearly we can improve the material well being of our people faster with a slowly growing population than with a rapidly growing population. That much is self-evident.

Thus, as I see it, the real question is not whether or not a country like Tanzania should pay attention to the trends of its population. That will obviously have to be the case, if we are to achieve our objective of providing every able-bodied man and woman among us, with adequate and gainful employment opportunities and some basic human needs. It is rather a matter of priorities. We know, from the historical evidence, that while population influences the rate of socio-economic development the latter also greatly affects the rate of population growth. We also know that countries which have paid too much attention to restricting population growth, but put too little or inadequate emphasis on changing some of the critical socio-economic variables like the level of general education and literacy, standards of health, as well as productivity per unit of labour power, have only achieved modest or little success in their effort to control their population growth. However, those countries which first and foremost gained control of their natural resources, so that they could use them to meet the basic requirements of their general population, and then instituted planning and other radical development policies, which have not only increased collective and social security among the general population, but also substantially raised the general level of production and productivity, have in fact quickly gained control over the population problem. Indeed, not only does broad based social and economic development reduce infant mortality, but it also changes the role of women in society from being passive housewives to active participants in all economic and social activities. These very conditions and forces reduce the pressure to have more children in a family and hence tend to reduce the rate of population growth.

Nevertheless, having said all that I do not want to leave you with an impression that we in Tanzania have understood all the forces at work between population and development, far from it. Thus, if during your deliberations you shed further light on how population growth affects development and vice-versa and what should be the correct population-development policy strategy, that would be more than appreciated.

Similarly, if you can also come up with some specific and positive proposals on how best we can plan and improve the provision of education, health services and employment in order to increase substantially the level of production and productivity, we would be more obliged to you. I need not over-emphasize the importance of collecting and acurately analysing various demographic phenomena that have a direct or an indirect bearing on planning our development. Thus, we welcome any assistance that the United Nations Fund for Population Activities can provide to us both in the area of strengthening our demographic statistics as well as in the improvement of mother and child health.

Mr. Chairman, Distinguished Guests, Ladies and Gentlemen, you have a very busy week ahead of you. As I said the issues you will be examining are of no less momentous significance to us. That is why we look forward to the outcome of your deliberations with a great deal of enthusiasm and optimism. Let me once again welcome you all to Arusha and wish you the most fruitful exchanges.

Thank you.

Best copy available

3. STATEMENT BY N.N.P. SHIMWELA, ACTING COMMISSIONER FOR MACROECONOMIC PLANNING MINISTRY OF PLANNING AND ECONOMIC AFFAIRS

Mr. Chairman, Hon. Minister, Mr. Resident Representative of the UNDP, Distinguished Delegates, Ladies and Gentlemen.

My statement will be extremely brief.

On behalf of my Principal Secretary who could not be with us here this morning I wish to welcome you all to this Seminar.

The seminar comes at the most opportune time in our planning cycle. This is the last year of the fifteen - year perspective plan which, we launched in 1964. We are now engaged in the preparation of a successor long term perspective plan for the next twenty years. Our current five year plan - the third in a series - will be expiring in about fifteen months from now. The ground for the fourth one is now being prepared at the ministry. At this time also the regions and the ministries are busy preparing next years annual plan due to be launched in July. The findings and recommendations of this seminar could be an important input into the three plans now under preparation.

As my Hon. Minister has pointed out, to us in Tanzania development means our liberation not only from socio-political oppression, exploitation, enslavement and humiliation but also from poverty, from ignorance and from disease. We are a poor country and that much we know. We cannot therefore depend on money for our development as the Arusha Declaration emphasises. Our biggest assets are our people, our land, our good policies and our good leadership. The essence of self reliance as stipulated in the Arusha Declaration is that genuine development will only be developed by others. Our people must be the driving force of our development. They must be both the means as well as the end of our development effort.

Mr. Chairman, my ministry if responsible for planning development at the national level - that is for trying to influence the future in such a manner that will liberate every citizen of this country from, as my minister aptly put it a while ago "the brutalising worship of nature". That is a formidable assignment. Planning, as you all know, refers to the future which we cannot put under experimental observation as the present. It therefore requires tremendous individual and collective imagination, skill and devotion. Since the future itself is highly influenced by the past and the present, the correct analysis and interpretation of the past and present phenomena is a vital input into any sound planning. Indeed it is the cornerstone of any planning at all. Unless the planner is well informed of the various variables involved, including demographic factors, their interrelationships and their influences on the development model we have chosen for ourselves, he cannot effectively manipulate the present or make any accurate and valid forecast of the future.

I have already referred to our people as the means and the end of our development efforts. Our Party, the Chama Cha Mapindizi and the Tanganyika African National Union before it, has directed that in preparing development plans our main emphasis at all times should be the development of the people and not of things. This seminar is about the people as they relate to planning - to what my ministry does. It is therefore that much relevant to us at the ministry. We are looking forward with keen interest to your informed discussions and subsequent policy recommendations, which we could incorporate in our plans.

Mr. Chairman, I promised to be brief and so I shall be. But let me, by way of conclusion, call upon everyone of us to contribute to this seminar the very most we can to make it worth the efforts, the money and the time spent on it. Otherwise the whole of this week will be spent on a costly disservice not only to ourselves but to the people and institutions we are here representing.

On behalf of the Principal Secretary to our Ministry of Planning and Economic Affairs, let me once again welcome you all to this seminar and wish you the most fruitful time in Arusha.

I thank you for your attention.

4. OPENING ADDRESS

by

MR. ADEBAYO ADEDEJI, EXECUTIVE SECRETARY OF THE ECONOMIC COMMISSION FOR AFRICA AT THE NATIONAL SEMINAR ON POPULATION AND DEVELOPMENT

Arusha, Tazania, 17-24 February 1980

1. It is my pleasure to welcome you all to this important National Seminar on Population and Development in the United Republic of Tanzania. The occasion is important, in my opinion, because it is the first such seminar following the 1978 UNFPA Mission to the United Republic of Tanzania to assess needs for population assistance.

2. It will be recalled that the Mission, among other things, expressed the belief that, in order to facilitate comprehensive, integrated development planning, awareness of the interrelationships between demographic events and social and economic development planning should be enhanced. In particular, the Mission felt that knowledge of the size and structure of the population together with its future trends is a basic component of development planning. Accordingly, it recommended that assistance should be given to the Government of the United Republic of Tanzania in the processing, analysis and dissemination of the 1978 population census results. Furthermore, the Mission recommended both the expansion of the civil registration system and the organization of seminars and workshops on the efficient use of data for planning purposes.

3. Consistent with these recommendations, UNFPA has since 1978 demonstrated its preparedness to assist the Government of the United Republic of Tanzania in its efforts to ensure the integration of the population variable into the over-all socio-economic planning of the country. I am referring here to the current three-phase plan for the whole country following the Arusha Declaration of 1967 and the Villagization Act of 1972.

The first phase of the plan involving the identification of the possible development constraints has been completed in respect of all 20 regions. The second phase, now in progress, aims at formulating definite projects for solving the regional problems identified in the first phase. The last phase will be concerned with the execution of the projects so identified.

4. Over-all the focus of the planning strategy is the attainment of massbased development, self-sufficiency, and economic growth with equitable income distribution. Among the economic policies pursued consistent with these desiderata are a deliberate emphasis on rural development involving the villagization of the rural population together with extensive rural infrastructural development; restraints on external dependency especially importation of consumer goods as well as increasing local utilization of domestically produced raw materials; and, sharp increases in government expenditures which necessitated high levels of domestic taxation and increased the need for foreign assistance.

5. In this regard, I would like to recall the plea by the Government of the United Republic of Tanzania to UNDP for aid in executing phase two activities of the plan in the Dodoma region. I would also like to note that UNFPA reacted favourably to a population study within this request and I am aware of the progress made so far on the project, entitled "Preparation of the Integrated Rural Development Plan for Dodoma". There is also the project covering the processing and analysis of the 1978 population census which is expected to be approved by UNFPA shortly.

6. UNFPA is not alone in assisting the execution of such well defined country socio-economic planning projects. I would refer to a recent meeting in Monrovia, since the issues are equally pertinent to the Tanzanian situation, where it was noted that the Economic Commission for Africa had consistently been aware of the demographic problems associated with formulating adequate and effective development programmes in Africa.

In fact, such an awareness underlies the Commission's strategy, philosophy and approach to all development planning in the continent. In place of the growth-oriented strategies of the past, ECA, in consonance with the views expressed by the United Nations General Assembly and the Economic and Social Council, is now recommending a unified approach to development which focusses attention on backward sectors, regions and population groups as a means of correcting imbalances in the economic process. This unified approach to development is basically population-oriented and seriously takes into account the full implications of the dynamics of population growth and change in their proven interaction with developmental factors affecting the generation of resources, their utilization for the benefit of society and the achievement of higher standards of living and quality of life in general. In this context, my plea is that the principal elements in the interaction between population and development planning should form the main focus of attention of participants at this National Seminar.

7. Before going any further, let me reiterate that nearly all aspects of this rural development are related to population size, composition and spatial distribution. Planners are concerned with such matters as demand for education, health services, food, nutritional needs, agricultural production, demand and supply of labour, maternal and child health care, etc. In sum, demographic data are useful to planners for determining the quantity of amenities needed, for making locational decisions and, for determining the levels of inputs needed to achieve given qualitative standards as well as the relative costs and benefits of initiating one programme over another. Therefore, participants at this seminar should also be concerned with the improvement of the demographic data base in the country.

8. Accordingly, whatever the focus of the discussion may be, it is important that the participants recognize the fact that although the country's land area is relatively large, its per capita GDP (1977) was estimated as $ US 100.00. Besides, over 30 per cent of its 16.4 million

people (1977 medium estimate) live in rural areas and are mainly engaged in subsistent agricultural production. Despite the efforts noted earlier in rural development, agriculture has tended to grow very slowly registering only about 2.7 per cent average annual growth rate for the 1970-77 period due mainly to low productivity and the generally poor agricultural pricing policies. On the other hand, the secondary and service sectors grew relatively fast during the same period at the estimated annual rates of 5.2 and 6 per cent respectively. Investment in real terms also grew at an annual rate of 3 per cent although its share in total GDP rose from an average of 16 per cent (1965-70) to 19.5 per cent (1970-75). Domestic savings, however, remained relatively small at around 17 per cent of total GDP.

9. Although firm data on unemployment in the country are not available, there has been some tendency to discourage rural dwellers from moving to the towns and even the repatriation from urban to rural areas of persons unemployed in the towns. It is known that since 1973 there has been a relative stagnation in the numbers of people employed as evidenced by a total wage employment in 1977 of only 0.4 per cent higher than in 1973. This seminar should also address itself to this critical policy issue as well as such other related issues as the extent to which the country had gone in establishing detailed knowledge of its natural resource base; the extent to which the educational system had been oriented to the extraction, processing and distribution of natural resources as scientific and technical knowledge of these resources expand; how much research is being done and applied to rapid skills development and multiplication; how adequate - in number, quality and location - are institutions providing business support services to entrepreneurs and what is happening to the capital goods industries.

10. Available forecasts indicate that Tanzania's economy can achieve a 6 per cent growth during the 1980/1990 period. In order to achieve such a goal agriculture would have to grow at a higher rate than the 1970/1977

trend of 2.7 per cent annually. The estimated desirable rate of 4.5 per cent can be achieved with improvement in agricultural pricing policies which will give higher incentives to agricultural producers; an expansion in acreage under cultivation; increasing the productivity of both labour and land. On the other hand, the secondary sector would have to grow at an aggregate rate of over 7 per cent annually. Since this would call for relatively high levels of investment, the most important policy in this area relates to an improvement in efficiency of capital. The problems that have to be tackled in this respect include the undercapacity utilization, productivity and overall management. The sectoral emphasis should be reoriented so as to focus on more productive sectors. For instance, mining could be given more attention to exploit the resource of natural gas, iron and steel, coal and nickel. This is one of the areas to which most of the external resources could be directed most productively. Finally, with agriculture and industry growing at the rates thus outlined, the service sector would be able to move in step so as to provide the crucial services like health, education and water.

11. All this points to the need for the United Republic of Tanzania to evolve broadly based comprehensive and objective population policies that are fully integrated with over-all national development planning objectives and programmes. Such policies should be comprehensible to the people; they should be directed at prolonging life as well as enabling couples to obtain a family size that is consistent with their social and economic aspirations and the opportunities available to them. To be effective, policies should ensure that means of communicating with the people are developed. Egalitarian income distribution, female labour force participation, a Maternal and Child Health programme as well as education and literacy, particularly for women have far reaching consequences in terms of modifying values and attitudes towards innovations and development in the population field.

12. From the agenda and time table for the National Seminar it is clear that you have a busy and crowded schedule ahead. The topics and problems to be discussed are indeed apt and relevant. It is, therefore, my fervent wish that they be discussed with a high degree of objectivity so as to arrive at concrete recommendations for early implementation in the interest of the Government and people of the United Republic of Tanzania.

5. OPENING REMARKS BY MR HAILU TELAHUN, ILO AREA DIRECTOR DAR ES SALAAM

Mr Chairman, Honourable Minister for Planning and Economic Affairs, distinguished guests, delegates, participants, observers, ladies and gentlemen

I am priviledged to be called upon to give an opening statement on behalf of the International Labour Organisation, which is jointly organising this important seminar with Population Division of the Economic Commission for Africa (ECA).

First of all, on behalf of the International Labour Organisation (ILO) and its Africa Labour and Population Team based in Addis Ababa, Ethiopia, I express my deep appreciation to the Government of the United Republic of Tanzania, the United Nations Fund for Population Activities (UNFPA), and our co-organisers - the ECA - for the joint efforts in making this gathering possible. These joint efforts are in themselves a manifestation of the fact that the issue of population, employment and socio-economic development is so complex and important as to require the efforts of not only one man, one country or one organisation or institution, but the joint efforts of all men, nations, and organisations/institutions that are genuinely committed to the improvement of living conditions, the provision of more and better social and health services, the provision of more economic and employment opportunities, and a more equitable income distribution in all countries. In fact, in the ILO's Plan of Action for the 1980's, the Director-General refers to the problems of population and development, and emphasizes the need to take a 'long, cold look at the harsh realities' confronting mankind and foresees population problems becoming more complex and acute with mass poverty listed as the most critical issue.

The main objective of this seminar, Mr. Chairman, is to increase awareness, among government planners and policy-makers, of the complex inter-relationships between population and socio-economic development. The World Population Conference in Budapest in 1974 and the post conference regional consultations, helped to obtain official recognition for this well-known empirical fact that population variables are directly and strongly linked with social and economic development variables, both as causes and consequences. Throughout the presentation of principles, objectives, recommendations for action and implementation in the World Population Plan of Action adopted by the Conference, the accent was on the integration of population factors with national, social and economic programmes and strategies. Thus it is increasingly being recognised, not only in technical and policy circles, but also among nations that population and development strategies and objectives are overwhelmingly complementary; and that population problems are multi-faceted, and demographic-socio-economic interactions, though very complex, have to be accounted for in order to formulate and implement efficient population policies as an integral part of national development planning.

These inter-relationships though complex, are not very difficult to conceptualise, for if the objective of socio-economic development planning is to meet the basic needs of the population, provide better and more adequate social and health services, improve living conditions and general welfare, redistribute incomes more equitably, and provide greater and better economic and employment opportunities, then the structure of the population and its demographic and socio-economic characteristics must be considered when developing these development planning strategies. The International Labour Organisation recognises fully these inter-relationships, and urges that population must no longer be seen as merely increases in number per se, but must be seen to include many factors associated with accelerated rural-urban migration, international migration, levels of unemployment and underemployment, fuller utilisation of human resources by improving the role and status of women, poverty and attempts to meet the basic needs of our people, the questions of income distribution, the quality of the environment, and the like.

It is only when population is seen in the terms enumerated above, and when planners and policy-makers recognise the importance of these complex inter-relationships between population and socio-economic development that population variables can be fully integrated into national socio-economic development planning strategies.

However, developing countries in general are still far from the stage where population variables can be fully incorporated into national socio-economic planning efforts, mainly because many lack adequate machinery for data-collection/analysis and research aimed at obtaining the knowledge of these interlinks between population factors, on the one hand, and social and economic factors, on the other. Unless such a knowledge is obtained, national population policies will remain rather simplistic and population variables will continue to be considered exogenous to socio-economic planning exercises. Fortunately, the United Republic of Tanzania has had a number of demographic surveys, population censuses and other studies. It is hoped that the wealth of information accumulated from these studies will be fully analysed to expose, and make us understand, these complex inter-relationships between population and socio-economic development in order to help our planners and policy-makers incorporate population and demographic variables fully into national socio-economic development planning strategies. I am sure this exposition is fully dealt with in the scientific papers to be presented at this seminar, which is specifically concerned with the situation in the United Republic of Tanzania, and that your discussions will make us more aware of these inter-relationships. The ILO, whose field policy/research programme has a distinct profile vis-a-vis the population programmes of other UN agencies, the UN and its Regional Economic Commissions, in that it examines the issues of population policies in the context of employment, migration, income distribution, labour markets and poverty, the status and role of women in development etc. looks forward very eagerly to the conclusions and recommendations resulting from your deliberations for future implementation as appropriate.

While wishing you very successful deliberations, I wish to reiterate once again the ILO's gratitude to the Government of the United Republic of Tanzania, the UNFPA, and the ECA (Population Division) for these joint efforts.

Thank you very much.

6. Statement by Ms. Helen Lewis-Jones
UNFPA Coordinator in Dar-es-Salaam
to the National Seminar on Population and Development - Arusha, 17-24 February 1980

Your Excellency, Distinguished fellow seminar participants and Observers,

I am very pleased to have this opportunity to make a few concluding remarks at this introductory session of the seminar. However, you may rest assured that, since by now you are probably eagerly awaiting a welcome coffee break, I will try to keep my remarks brief and to the point.

First of all, on behalf of UNFPA, I would like to say how delighted and honoured I am to be among you today. I am very happy to see so many of you here, some of you well known to me in Dar-es-Salaam, but several others coming from other parts of the country and abroad. I should in particular like to thank Professor Malima once again for so kindly coming here to deliver the opening address. I think you will agree that his paper was extremely stimulating and that if offers not only many thoughtful insights into how Tanzania views questions relating to population at this time, but lays down a challenge to us here at this seminar to find a relevant and workable mechanism to bring population and development questions into clearer focus for the day to day work of planners.

I would like to take this occasion very briefly to say a few words about UNFPA's work and the programme which is being developed here in Tanzania. As I am sure many of you are aware, UNFPA recently celebrated its tenth anniversary. To give you some indication of how rapidly it has grown, in the Fund's first year of operation in 1969, it started with just 12 projects; by the end of 1979 it was supporting some 2,500 projects spread over 125 countries and with a further 1,000 already completed. It is today the largest single source of multilateral assistance in the population field.

UNFPA's main programme areas are population data collection and analysis, social and demographic research, measures to encourage the use of research findings for policy, maternal and child health including child spacing, population education and communication programmes, training in statistical and demographic fields and special programmes for women, children and the aged.

Because UNFPA works in a relatively sensitive and in some respects still controversial area, its aims can easily be misunderstood. It should be stated quite categorically that UNFPA responds only to the needs of governments as they themselves perceive them and that it does not seek to advocate any particular population policy. Where governments have requested help in laying the groundwork for a population policy, we have responded. We also see it as our mandate to promote awareness among policy makers about population issues. Similarly, family planning programmes supported by UNFPA are a response to the priorities expressed by certain governments, particularly in Asia, where very fast population growth rates have been perceived as a constraint to development. However, and this is particularly true in Africa, in the health sector UNFPA has primarily been concerned with child spacing in the overall context of maternal and child health. Within this framework, services are provided with the objective of decreasing the high levels of infant, child and maternal mortality rates experienced in so many African countries. In some instance, African countries have also been concerned at their low fertility rates and here UNFPA has responded in several countries with studies and strategies to deal with the problems of infertility and subfecundity.

It is also well known that the development efforts of many African countries are constrained by inadequate statistical and demographic data. It hardly needs mentioning again that planners need adequate population information to make intelligent decisions about the allocation of resources. Too often, such information is not available, is incomplete or is not in a form conducive to use. In this connexion, UNFPA has assisted over 22 countries in the region to undertake population censuses and subsequent demographic surveys and studies as well as training programmes to build up a core of trained manpower in this area.

Turning now to Tanzania in particular, as Mr. Kabbah has already mentioned, UNFPA last year established an office within the UNDP office in Dar-es-Salaam, following a Needs Assessment Mission which visited the country in October 1978, as a consequence of which a number of unfulfilled needs in the population field were identified. At the time when the office opened, there was only one ongoing project, namely the Population/Family Life Education project executed by FAO and ILO. This multi-disciplinary project, which is situated within the Prime Minister's Office, aims at building up the technical capacity within the government for family life education and tries to reach a wide number of government and national non-governmental bodies. I am pleased to see the International Project Adviser here today and her paper which elaborates some of the key concepts of the project has been distributed to you all.

Four more projects have been approved since last October and about a dozen more are pending approval or are in the pipeline. Three of these are of particular interest to this seminar. Firstly, I am pleased to report that UNFPA has just approved a project which will make additional computer facilities available, together with advisory services in data processing and analysis to expedite the data from the 1978 population census. Needless to say, these data are vital for the next five year development plan and for other planning exercises. Secondly, UNFPA is at an advanced stage of discussing with the government the improvement and expansion of the civil registration system which will be a long term measure to make available in a more dynamic and detailed form information on the population situation and trends in the country.

Thirdly, since it is obvious that a prerequisite for using population data is a basic familiarity with demographic concepts. UNFPA is having discussions with the Prime Minister's Office and the Ministry of Planning to organize a series of training workshops for planners at the regional and district levels to demonstrate the use of population variables in concrete terms for their planning tasks.

I am pleased to see some representatives here from the regional planning authorities and I hope there will be an opportunity to pursue this as part of the seminar proceedings.

Other pending or pipeline UNFPA projects include the further training of MCH Aides and other primary health care workers, support to the health information system, support to day care centres, a national fertility survey, a demographic survey for the Dodoma region, and the possible establishment of a unit in an appropriate government department to coordinate social and demographic research and to promote the findings for policy. With respect to this last proposal, and to the planning workshops mentioned above, I should like to point out that we have a UNFPA programming mission joiningup here at the seminar, consisting of Dr. Stephen Viederman, Head of UNFPA's Technical Unit on Social and Demographic Research in New York, Dr. Aderanti Adepoju, a demographer at the University of Ife, Nigeria, who was a member of the Needs Assessment Mission to Tanzania in 1978, anddMr. Eric Krystall, from FAO, Rome. These three mission members hope to have discussions with you here and follow them up with others in Dar-es-Salaam and Dodoma later on.

It is my hope that the foregoing conveys something of the breadth and great flexibility of UNFPA's mandate. Population is a multi-faceted subject and it involves a two-way relationship between population factors and development. We are just beginning to come to grips with the complexities inherent in the relationship, for not only do population variables affect development, but development policies themselves have an impact on population factors.

It now only remains for me to welcome you all again and to hope that our discussions will be frank, constructive and of practical significance to our work, and to express my deep appreciation to the government of Tanzania, to ECA and ILO for combining together to make this event possible.

Thank you.

7. Statement by Mr. S. Viederman UNFPA Headquarters

Mr. Chairman
Distinguished Seminar Participants
Ladies and Gentlemen

In approaching the issue of population and development planning we must first be clear about what we mean.

First, I must emphasize the breadth of UNFPA's concern with population. To make clear that what I will say is not only my own position but more importantly the position of the UNFPA, let me quote from a number of recent statements by Mr. Rafael M. Salas, Executive Director of UNFPA, Speaking of the "status of population myths", he observed that

> "The third myth that is widely believed, without much examination, is that population programmes should be regarded exclusively as family planning programmes. Obviously, this is rooted in the belief that the only population problem one faces is the problem of over-population, which could be tackled by curbing population growth. In fact, population problems and programmes cover a wide range of issues, such as size, growth, distribution, composition, structure, mortality, fertility, migration and many other variables".

"From this broadened understanding, it was not difficult to conclude that just as there is no single definition of a population problem, there is similarly no single or partial solution to the problems, no matter how defined. It is within this context that attention is being directed to the linkages between population and development planning... ...... What we seek is a process .... which will help us to grapple intellectually, conceptually and programatically with the issues".

Thus having reestablished the linkage, and the need for greater attention to the population and development interface, we find ourselves today standing at a new frontier. For having identified the need to integrate population factors in development planning, there is still much territory to be explored to bring this idea to full function and implementation.

This leads me to my second point, which is that in this new field you are the experts, because you are the people who have experienced the challenges and the difficulties. As yet world experience, whether from the pens of scholars or the desks of planners, is extremely limited. This seminar and the efforts that may derive from it in practice can contribute greatly to what is known about what needs to be done.

Having so noted, we must also observe that the needs of each country will be different. The development of a process whereby population is better integrated with development planning and programming must be country specific. Obviously it must reflect and be reflected in the development process of the country, in its unique institutions, and in its goals. Thus attention to the planning organizations, models and processes is not peripheral but is rather central to a concern for linking population and development. Simply stated, without attention to planning, a serious approach to linkages is impossible. The linkages we speak of are not population programmes but population and development programmes. And being country-specific they must take careful account of the social, cultural, political and economic life of the country.

What I have to say cannot or should not be interpreted as a prescription. Rather it may be received as a checklist, or a set of rough guidelines which can help you determine what you might wish to do here. Before beginning with a synthesis of what we have learned over the last years, it is important to note that this experience is truly interregional and covers all parts of the developing world. Of particular interest is the fact that much of what has been learned derives from countries in Latin America, where we are presently supporting more population and development integration activities than anywhere else. This interest derives from the fact that many Latin American countries, like many African countries, perceive population distribution to be their major population problem . They are also countries that have often been resistant to accept family planning, per se, for purposes of population limitation.

In May of 1979 the Ministers of Planning of the Latin American countries came together at the invitation of UNFPA in Cartagena, Colombia. There they affirmed their interest in population and development integration. I propose that that Conference further served to underline the broadening of the conceptualization of population, and the value of integrated planning regardless of one's position on family planning, fertility or population control, or other narrower definitions of population which have caused controversy in many countries, including the United Republic of Tanzania.

There are six functions which our analysis suggests to be important in considering linkages between population and development:

1) to raise the levels of awareness regarding the importance of a linkage;
2) to create, maintain and utilize cadres of technically comptent personnel in government and research settings;
3) to create, maintain and utilize the data base;
4) to create, maintain and utilize knowledge;
5) to create and maintain an institutional setting for coordination; and,
6) to create and maintain capabilities for integration in planning, programming and in the implementation and monitoring of programmes.

Awareness creation

The failure here has often been an overzealousness by those who are already among the converted. An emphasis on a particular rate of growth in the abstract has no meaning: There is no optimum.

Rather the approach must begin with development goals and objectives, which are and must be paramount. The issue is in what ways a particular rate of growth or pattern of population distribution or age structure or mortality level may contribute to or hinder the achievement of development goals. Each planner or decision-maker should have some sense of this.

They must also have some sense of the time dimensions involved. The simple fact, for example, that population growth has its own momentum, which measures changes in decades rather than months or years, is essential for integration because it necessitates a longer time perspective. When we speak of population, we are truly speaking of the future being now.

Another element in awareness creation is destruction of the myth that population is synonymous with family planning and population control. Internal migration, spatial distribution, urbanization and the like are all equally important elements in considering population planning in a country. And population planning, as Mr. Salas has observed "is a programmatic factor in the creation of development plans".

Training

The need for trained personnel needs no underlining. The issues arise as to the numbers to be trained, in what skills and techniques, with what methods, in what settings, for what periods of time, and to what ends in terms of how they will use their training. We find, in this regard, that it is very useful for governments to develop human resource plans that attempt to answer these questions in the most economical way in terms of the expenditure of scarce resources of time, money and personnel.

In many cases it is assumed that short-term in-service training is sufficient to initially make better use of demographic and population data and analysis in the planning process, whether at national or sub-national levels. In some cases, fewer in number, longer-term more detailed training will be needed, sometimes even degree level training. The development of facilities to carrying on training after initial crash programming are completed is also a part of the human resource plan.

The main point, however, is that not everyone needs to be a demographer or population specialist. Appropriate training of people already knowledgeable about and involved with planning is the important first step.

Data Needs and Resources

It is commonplace for planners and population specialists, especially in seminars and other forums such as this, to decry the lack of data. These statements are then usually followed by a long list of things that are "needed". Unfortunately, this often becomes something of a game, and the distinction between true needs and simple desires, is seldom drawn.

Without denying the importance of data for planning, it is incumbent upon us all to be more specific, particularly as to what is actually usable and what will actually be used in the process, and as to how it will make a difference either technically or politically.

The call is often made also for "more refined data" but at all times we must ask, at what cost?. And what would be different in what we do, in what ways, if data are more refined? Do the benefits of such improved data justify the costs in use terms?

Related to this is the assessment of the extent and usability of already existing data, which may very often be sufficient for many purposes, even though we would like to have new more up-to-date information.

Many countries have, following the data assessment, worked to develop *data banks* to make the existing data more readily available. These may also serve to ensure an historical dimension to data sets, making it more possible to understand the dynamics of change over time. Finally they can, if properly developed, help a wide range of potential users become aware of available data, about which they might otherwise have not known.

As part of the data base, we must also include the development of population projections based upon various assumptions to assist planners in understanding the consequences of alternate population and development strategies over the various planning periods.

Finally, we must emphasize as part of the concern for utilization, the obvious point that data without analysis are virtually without value. All tooooften much time is spent on preparation for and collection of data as if this were an end in itself, rather than a means to an end. Greater attention to *timely* analysis, before the data take on historical rather than practical value, is of primary importance.

Research and the knowledge base

What has been said previously about data applies equally to research and I will not belabour the point here. The term "policy-relevant research" has a pleasing sound, but its meaning in practice is often obscure. Once again we must ask ourselves why a particular piece of research is to be done, how will the questions be phrased to meet the needs of users, how will users be involved not only at the end but from the beginning of the process, within what time frame must the product be produced to be useful, in what forms (summaries, technical papers, etc.) will the product be presented, and also in what sorts of forums (personal meetings, seminars, etc.), so as to reasonably ensure greater utilization.

There is also a danger of too great fragmentation of research. This results in isolated bits of information which can neither be cumulated nor combined into a meaningful and useful composite. Thus countries have found it useful to develop research agendas through a process involving users and producers of research. This process includes reviews of what is known about population and development interrelationships - emphasizing the two way nature of that relationship. In a number of countries, this has included the production of a population and development status report. This provides a usable summary of what is known at a given point in time while at the same time serving to identify gaps in knowldege which need to be filled. Korea has produced such a report, and others are in process at this time in a number of different countries.

The issue of utilization of research, we have found, must be addressed at the time that the process of research is initiated. Simply to state, as is so often the case, that a certain number of copies will be printed or cyclostyled and disseminated, and/or used in a seminar or workshop is not sufficient. While we admittedly know too little about the processes of utilization of research, we do know from experience that it represents more than that. Experimentation in this area is a reasonable component of any population and development project.

Coordination

We have left for last what may be the two hardest parts of the population and development linkage, in a practical sense - coordination and implementation. Here we will address the issues of coordination, on which there is some experience, though not yet fully analyzed, and highly country specific.

Rather than focussing on the models of others - which include National Population Commissions (either freestanding, or attached to Planning Ministries or Commissions, or to a variety of sectoral agencies), or to special units in Planning Commissions or Ministries, or to special units in sectoral agencies - we will focus on functions that seem to be generally agreed upon. These encompass the functions we have already discussed - awareness creation, development of training or human resources plans, data assessments and plans, research reviews and research agendas.

Most importantly, however, they try to ensure that the various actors in the planning process - national and sub-national, sectoral or otherwise - are working together so that population plans, programmes and processes are responsive to and coherent with development plans and programmes. Through such a process, to quote Mr. Salas once again, speaking to the Planning Ministers of Latin America, "we hope that we will be able to develop more sensitive and suitable population policies which are integrated into development policies and programmes. These policies, which might be called 'second generation population policies' to differentiate them from those policies that concentrated on only one aspect of the subject, should be more responsive to meeting the needs of people in the last years of the twentieth century, as well as those of generations to come. It is this challenge, he noted, then, as we might note now, "that has brought us together today."

Such a coordinating mechanism would work to ensure to the degree possible that the various actors have the data and information which they need available to them. It could also serve to provide technical advice and assistance, as necessary.

The sort of interministerial cooperation and coordination that is required is not easy. But the need is clear.

Integration and Implementation

Plans are statements of intent, not necessarily statements of action. Planning was described by a journalist at the turn of the century, as a process whereby one seeks to find the best method of achieving an accidental result. Given the enormous constraints we might even question whether librarians would be better served by placing plans within the fiction rather than non-fiction sections of their collections.

The point is that we must not forget that planning is not an end in itself. Rather it is part of a process, the ultimate aim of which is to improve the welfare and quality of life of the people. And this requires not only plans, but more importantly programmes. Thus, it is not sufficient to speak of integrating population and development planning, which is sufficiently difficult, but also with development programming.

This is the need to analyse present plans and programmes for their population and development interrelationships, and to monitor their implementation, in the hope of developing the consistency and coherency we have already referred to.

For example, we must know the likely or potential impacts of the location of a particular industrial plant, on population distribution (through migration for work), on fertility (perhaps through employment of women, or changed patterns of income distribution), and on mortality (negatively through environmental effects or positively through improved health and welfare). We must then have a process where these population factors are considered alongside the more obvious economic and political considerations, and weighed in the process of decision-making. As the example shows, a fairly simple decision may have far rreaching consequences. The concept of integrating population factors with development is to assist in the assessment of these consequences so that decisions to be taken can be made with as much information as possible to meet the multitude of needs of the government and the people.

In concluding I return to my earlier observation that in this area of linking population and development you are the experts. No one needs to tell you the complexities. What we at UNFPA hope is that we can assist you and the government and people whom you serve to work through these problems for the benefit of all.

1. POPULATION & DEVELOPMENT IN KENYA

INTRODUCTION

1. The demographic situation in most developing countries is characterised by high birth rates of 45 per 1,000 or more and death rates of about 19 per 1,000, leading to high rates of natural increase. While the crude rate of natural increase for the whole world is 1.8 per cent per annum, that for Africa is 2.6 per cent with Kenya, on the basis of available data, reporting a rate of 3.9 per cent per annum. Thus, the rate for Kenya is one of the highest in the world.

2. Demographic trends have relevance to socio-economic development. Since 1950, development models in which the population plays a central role have been constructed. The effect of population dynamics on the size of population among which a given income has to be shared, on saving rates and on the composition of investment have been shown to have significant consequences on economic growth and on per capita incomes. Per capita income is affected not only by population size but more so by its rate of growth and age distribution. A higher rate of population growth implies a higher level of investment required to achieve a given increase in per capita income in the future. Countries like Kenya with very high rates of population growth and a large population aged under 15 years need to divert more resources to consumption, leaving less income available for savings and investment. At the same time economic development has its own impact on fertility and mortality through the improvement of health services and on migration scale patterns of investment create regions with different levels of development.

3. In a country with a high rate of growth of population the increase in the population aged under 15 is especially large compared to the population aged 15 years and over. In such circumstances an improvement in the quality of education or an increase in the school enrolment, both of which are always considered among development objectives, will impose an increasing burden on the relatively small economically active population.

4. On finishing school, the individual normally wishes to join the labour force and become economically active. The size of the labour force thus is a function of population size, its age profile and its sex structure. It is also a function of age- and sex-specific occupational activity rates and the influence of social conventions, although the latter may change with job availability. A high rate of population growth implies that development must create jobs at an adequate rate for the growing numbers wishing to join the labour force. The size of the population which needs to be catered for has thus to be reliably estimated and policy and planning measures taken accordingly.

5. Most developing countries reflect variations in regional stages of economic development with the urban areas being the most favoured. These variations are reflected in variations in internal migration with a high percentage of the population moving to the urban area to seek employment. This in turn has led to rapid growth in the rate of urbanization, with the relevant authorities being unable to provide socio-economic amenities to cater for the urban population.

6. Although Kenya's preoccupation with family planning is not a recent phenomenon, it was not until after the analysis of the 1962 census data that the need for a conscious population policy was acknowledged by the Government. In 1974, a five-year family planning programme was established with the support of the World Bank aimed at reducing the then estimated rate of population growth from 3.3 per cent per annum to 3 per cent per annum during the programme period. Improvement of rural health and family welfare was also an objective of the programme. Any new programme which may succeed the previous one will have to be particularly effective if the current development plan goal to reduce significantly the current birth rate in order to have an impact on the rate of population growth is to be achieved.

FERTILITY LEVELS

7. Total fertility rate in Kenya was estimated at 6.8 in 1962; 7.6 in 1969; and 8 in 1977. This represents an increase of 18 per cent. One of the reasons for the present higher number of mean live births per woman is the decline in the incidence of childlessness as shown in table I, a phenomenon usually accompanying improvement in economic and health conditions.

Table 1. Proportion of childless women - 1962 and 1969, by age group

Year	Age group (in percentage)						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1962	79.1	36.6	22.3	17.0	15.3	14.4	13.7
1969	75.5	24.7	11.1	8.1	7.6	7.8	7.9

Source: 1962 Population census analytical reports

8. Not only did the proportion of childless women decline during the period under consideration but also the proportion having one, two or three children declined sharply. In 1969 women aged 40-44 with one, two or three children made up 13 per cent of the total, whereas by 1977 the proportion was sown to 8.6 per cent.

Table 2. Proportion of women with one, two or three children by age group 1969 and 1977

Age group	1 child		2 children		3 children	
	1969	1977	1969	1977 (in percentage)	1969	1977
30-34	4.3	3.1	5.7	3.8	8.1	7.3
35-39	3.6	2.1	4.5	3.0	5.9	4.8
40-44	4.0	2.4	4.3	2.7	5.3	3.5
45	4.0	2.3	4.0	3.0	5.2	3.5

Source: 1969 Population census Analytical report, vol. IV, and 1977 National Demographic Survey

FERTILITY TRENDS

9. As noted above, total fertility in Kenya rose from 7.6 in 1962 to 8 in 1977 with the crude birth rate rising from 48 per 1,000 to 54 per 1,000. With regard to changes in age-specific fertility rates, as shown in table 3, between 1969 and 1977 Kenya experienced an appreciable rise in fertility for women aged 15-34, with some decline for women aged 40-49.

Table 3. Corrected age specific fertility rates, 1969 and 1977

Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1969	0.139	0.331	0.337	0.294	0.223	0.135	0.068
1977	0.180	0.377	0.386	0.323	0.233	0.107	0.014
% change	36	14	15	10	4	-21	-80

Source: 1969 Population census analytical report, vol. IV, and 1977 National Demographic Survey.

MORTALITY

10. Model life tables have been fitted to the 1962, 1969 and 1977 data. The infant mortality rate and expectations of life at birth derived from these life tables are shown in table 4. These data indicate that there has been an improvement in mortality rates. This improvement is largely due to reduction in infant and child mortality, which for both sexes fell from 119 per 1,000 in 1969 to 83 per 1,000 in 1977. Adult mortality rates have also shown an improvement, although less spectacular, with the expectation of life at age 15 rising from 46.7 years and 49.7 years in 1969 to 47.7 years and 51.1 years in 1977 for males and females respectively. The crude death rate also fell from 17 per 1,000 to 14 per 1,000 between 1969 and 1977.

Table 4. Derived mortality indices

Index	1962	1967		1977	
		Male	Female	Male	Female
Infant mortality rate	-	126	112	87	78
Expectation of life at birth (years)	45	46.7	49.7	47.7	51.1

POPULATION GROWTH

11. The crude birth and death rates were used to derive the rates of natural increase. The rates obtained were 3, 3.3, and 3.9 per cent per annum for 1962, 1969 and 1977 respectively. The increases in the rate of natural increase despite family planning efforts is, as is evident from above, the result of rising fertility and falling mortality. If the current rate of increase of 3.9 per cent is continued, Kenya's population would double every 18 years. The August 1979 population census revealed that Kenya's population was 15.3 million and if it grows at the rate of 3.9 per cent then Kenya's population would reach 30 million in 1997 and 61 million in the year 2015.

12. To help to obtain detailed knowledge of the effects of the high rate of increase, population projections were computed. The discussion below will be based on these projections. The high rate of population increase has an appreciable effect on age structure. Increased fertility boosts the child population through yearly increases in the number of births and decreasing mortality increases the child population through a significant reduction in infant and child mortality. These changes in fertility and mortality will, however, have little effect on the adult population in the short run. These changes result in a very broad based population pyramid.

CONSEQUENCES OF RAPID POPULATION GROWTH

13. Although Kenya is a large country, with an area of 582,646 sq. km. only 17 per cent or 100,000 sq. km. is arable. This means that in 1979 per capita availability of arable land was only 0.65 hectares. If the population continues to grow at this rapid rate and if it is not possible to keep the rate of conversion of marginal lands on a par with population growth, although in the short run it may be possible to increase agricultural employment, it will not be possible to do so by the end of this century.

14. Rapid population growth as reflected by family size has an effect on household consumption patterns with larger households associated with consumption of food as opposed to non-ffod items. The integrated rural survey of 1974-1975 has revealed that the larger the household the less the income per household member. It can be derived from the survey that with larger households and women continuing to experience a total fertility rate of eight children, Kenya may have to experience a fall in income per capita. On the other hand, since these large households spend most of the income on food items they save less. With less savings it will not be possible to effect a high capital investment rate and Kenya may have to continue relying on foreign assistance or loans.

15. One of the consequences of the growth in population is the rise in the size of the labour force. Population projections have been computed based on various fertility assumptions but since fertility has been rising since 1962 the high variant will be used in this paragraph. The labour force for ages 15-64 was projected to 5.3 million in 1979 and to 11.6 million in year 2000. The number of employees empolyed in the modern sector in 1976 was only 680,000 which falls far below the projected labour force. These projections mean that Kenya will have to create over 6 million ojobs by the turn of the century in order that it may be possible to achieve full employment. Enormous additional investment will be required simply to create these new jobs.

16. One of the Government's major socio-economic development concerns is the provision of education, particularly basic education. As noted above, rising fertility and declining mortality result in increases in school-age population. Consequently, more resources will be required to expand educational development programmes. Although in recent years the government has expanded educational infrastructure very rapidly leading to primary school enrolment rising from 1.7 million in 1972 to 3 million in 1978, more investment will be required if the goal of 100 per cent enrolment is to be achieved in this century.

17. Rapid population growth has its effects on the provision of health services. Kenya's Government policy is to improve health services and to alleviate and prevent diseases, aimed at introducing good health and contributing towards maintaining and enhancing the productive potential of the people. Improvement of health services is thus an investment in human capital. In 1978 there were about 1,500 doctors with each doctor having a workload of 10,000 population. This is a heavy burden and if the population continues to grow at this rapid rate it will become more and more difficult to provide better national health services.

18. The Kenyan Government plans to provide the entire population with safe water by year 2000. This problem is not now very acute since the existing potential for supplying water for human consumption and livestock needs exceeds current demand. However, nearer to the year 2000, with a rapidly growing population which adds to current needs and with deforestation a higher investment will be required to achieve the set goal.

19. The Government has since independence made strides in the provision of better houses for its population. However, inspite of these efforts, this area remains an important challenge. Lack of adequate housing is more acute in the urban areas, as a result of a large influx of migrants from the rural areas. In 1975 in Nairobi there was a shortage of 35,000 housing units. Other urban areas equally are not in an enviable position and if the urban population continues to grow at current rates in the region of 6 per cent the demand for housing will continue to escalate.

2. DEVELOPMENT PLANNING AND THE ROLE OF DEMOGRAPHIC VARIABLES IN UGANDA

1. Development planning in Uganda started in the colonial days, but was not very effective until after independence. From 1962 to 1971, many efforts were made by the Government to use the planning machinery as a means of achieving socio-economic development. A Ministry of Planning and Economic Development, separate from the Ministry of Finance, was created to initiate, coordinate, and monitor the implementation of the perspective and medium-range development plans. Between 1962 and 1971 two medium-term plans and one long-term plan were prepared. The plans were implemented effectively, especially in the field of education and health where the targets were exceeded. These successes in planning processes were short-lived with the rise of President Amin in 1971. During his rule (1971-1979), only one Development Plan was prepared in (in 1976) and this was solely to satisfy the requirement the International Monetary Fund imposed before any financial aid could be given. This plan was never implemented since the Government was not interested in socio-economic development but in military expansion.

2. As stated above, the former regime had no intention of implementing a development plan. The Uganda National Liberation Front Government did not inherit any on-going development plan or one in the pipeline. Instead, the new Government found for several reasons a greater need for planning the development of the country than ever before. First, the agricultural sector no longer produced coffee and cotton but was a subsistence-producing sector. Second, industries lacked raw materials, machinery in good condition, investment and good management. As a result the productive capacities of the economy were very much below the expected rates. Thirdly, the distribution and marketing systems were very inefficient, giving rise to critical shortages, black-marketeering and high inflation rates. In brief, the economy was in ruins, supporting a society which believed in consumption without investment. Thus, it needed urgent rehabilitation and reconstruction.

3. After studying the magnitude of the problem, the Ugandan Government has recently taken two positive steps. First, a Ministry of Planning and Economic Development has been set up separate and independent from the Ministry of Finance. Its major function is to integrate and co-ordinate all plans of different ministries into one national development plan and identify sources of finance. Second, a National Planning Commission composed of several ministers and chaired by the Minister of Planning and Economic Development has been created. The mian function of the Commission is to allocate funds to the various ministries of the Government. The decisions on the allocation of funds are based on the findings of the Commission's secretariat. The secretariat has the responsibility to identify the financial needs of different government ministries, prepare the next long- and medium-term development plans and monitor the implementation of the plans. The planning structure in the country will be on the ministerial and district levels. Existing planning units in the ministries will be strengthened and planning committees in the districts will play more active roles in the evolution and implementation of development plans at their respective levels. All those efforts will be co-ordinated by the secretariat of the Planning Commission at the national level.

THE ROLE OF DEMOGRAPHIC VARIABLES

4. The Ugandan Government recognized the important role played by population factors in the planning processes of the country. However, unfortunately, there are limitations in the data to be used. First, Uganda does not have effective vital registration system. For a long time now, the law requiring all people in Uganda to register vital events has existed in name only. As a result the annual numbers of births, deaths and migrants are unknown to planners. Second, between 1972 and 1979 there was no major demographic survey. This situation makes it very difficult for demographers to determine the annual changes in the major population components, ie. fertility, mortality and migration, between the 1969 and 1980 censuses.

5. The only sources of demographic information the National Planning Commission hopes to use are the 1969 and 1980 censuses. The field operations of the January 1980 census have just been completed and the preliminary results are expected in three months' time. The processing and analysis of the data are expected to be completed by the end of 1982. In practice, therefore, it will be the 1969 census information that will be relied upon most for immediate planning purposes.

CONCLUSION

6. Uganda benefited very much from the development plans of the 1960s. The 1970s witnessed a deterioration of the situation because no plans were implemented. During the 1980s, Uganda is likely to experience the reactivation of the development plans aimed at rehabilitating and reconstructing the economy. However, the use of population factors in the planning processes will be limited by the scarcity of demographic information available in the country.

3. POPULATION & DEVELOPMENT PLANNING IN ZAMBIA

INTRODUCTION

1. Zambia is making vigorious efforts to accelerate the pace and change the pattern of economic and social development with emphasis on strengthening the agricultural and industrial base of the economy to raise the standard of living of the people and improve the quality of life. This has led to deliberate emphasis by the Zambian Government on planning. The country, since it attained independence some 15 years ago, has had three development plans, and the fourth 1/ (the third development plan 1979-1983) is still in progress. The planning processes over the period have undergone substantial changes and in many ways can be said to be growing from the grassroots to the top in concert with the country's policies of giving power to the people and devolution of authority.

THE GOVERNMENT PLANNING PROCESS

2. (i) Regional plans

Regional plans are carried out at five levels:

(a) Village level. The village has a development committee which is supposed to identify the needs of the village. Small projects so identified are carried out by the villagers themselves through the self-help process. The bigger ones are passed on to the ward.

(b) Ward level. Villages are grouped into wards and each ward has a development committee. They, too, identify the community need and carry out, on a self-help basis, those projects which they are capable of executing and in turn pass on bigger projects to District Development Committees.

(c) The District Development Committee. Chaired by the District Governor, the committee is composed of elected representatives of township and rural councils, members of parliament and heads of departments at the district level. The district secretary is the secretary of the committee. The district development committees also operate in a manner similar to the village and ward committees except that they can mobilize more resources than the constituent units mentioned above.

(d) The District development committee's decisions on major projects are passed on to the Provincial Development Committee (PDC) which is chaired by the provincial member of the Central Committee of the ruling party, UNIP. The small projects agreed at the PDC are budgeted for and implemented by the Permanent Secretary in charge of the province.

(e) Other projects are passed on to relevant central government departments and ministries for their consideration and action.

1/ The first development plan was known as the "transitional development plan" and lasted for a period of 18 months from July 1964 to Dec. 1965.

(ii) The macro-plan process

These plans are arrived at through ad hoc sectoral committees established by the National Commission for Development Planning which is the central government agency for planning policy-making and coordination under the Office of the President. These committees comprise competent agencies, sectoral experts from the Government, members of parliament, and the private and parastatal sectors. Their function is to evaluate and present proposals in their respective sectoral areas to the Commission. These projects together with the "local" projects emanating from the provinces are synthesized into the plan document which is passed on to the Cabinet for consideration and approval.

THE PEOPLE OF ZAMBIA

3. According to the 1979 mid-year estimates, the population of Zambia was about 5,649,000. This indicates an increase of 17 per cent over the 1974-1979 period. The annual average growth rate works out at 3.1 per cent. Between the 1963-1969 and 1969-1974 periods the average annual rates of growth were 2.5 per cent and 2.9 per cent respectively. Thus the population of Zambia is not only growing fast but the growth rate has actually accelerated.

4. The Copperbelt Province with a population of 1,367,000 is the largest in population size. It accounts for 24 per cent of the total population. It has been growing faster than any other province and has been gaining in proportion in each succeeding census. In 1963, its share of the total population was only 16 per cent in 1969 it was 20 per cent, and then 22 per cent in 1974. The only other province with fairly large proportions is the Central Province (including Lusaka Province), which had 15 per cent in 1963, 18 per cent in 1969, 20 per cent in 1974 and 21 per cent according to the mid-1979 estimate. In all other provinces the proportion dropped or was barely maintained. In actual fact the Luapula Province had a net population loss between 1964 and 1974. The Northern Province, which had a net loss in 1963-1969, reversed its trend and showed an annual average increase of 1.8 per cent in 1969-1974 and 1.4 per cent in 1974-1979.

5. The urban population grew at the rate of 6.9 per cent per year during 1969-1974 and at 6 per cent for the 1974-1979 period. The proportion of the urban population increased from 20.5 per cent in 1963 to 29.4 per cent in 1969 to 35.4 per cent in 1974 and to 40.4 per cent in 1979.

Table 1. Distribution of population by province, 1963-1979

Province	POPULATION DISTRIBUTION IN PERCENTAGE			
	1963 Census	1969 Census	1974 Sample Census	1979 Mid-year-estimate
Central (including Lusaka)	15	18	20	21
Copperbelt	16	20	22	24
Eastern	14	13	12	12
Luapula	10	8	7	6
Northern	16	13	12	12
North-western	6	6	5	5
Southern	13	12	12	11
Western	10	10	10	9
Total Zambia	100	100	100	100
Urban	20.5	29.4	35.6	40.4

6. In 1974 there were 2,275,000 males and 2,401,000 females. This gives a sex ratio of 947 males per 1,000 females. The sex ratio in 1969 was 969 per 1,000 females. The reasons for this preponderance of females in the population have not yet been fully investigated (see table 2). The sex ratio differs from province to province. The Copperbelt and Central (including Lusaka) provinces have a surplus of males. Third in line the Southern Province, had a sex ratio of 966 males to 1,000 females. In all other provinces the sex ratio was below 900.

Table 2. Sex ratio by province

Province	Males per 1000 females	
	1969	1974
Central (including Lusaka)	1 053	1 040
Copperbelt	1 089	1 060
Eastern	850	850
Luapula	923	866
Northern	885	895
North-western	897	895
Southern	974	966
Western	867	803
Total Zambia	960	947

7. The population of Zambia is young, ie. the proportion of younger people is fairly high. Children under 15 years of age formed 52 per cent of the total population, according to the 1974 sample census. This indicates a very high level of fertility and would give a very high growth rate in future. The older population aged 50 years and above is lower in the Copperbelt and Central Provinces. The population aged 15-49 years is more than 40 per cent in these two provinces, whereas in all other provinces the share is lower. This is due to the fact that young men and women prefer to migrate to the urban centres of the Copperbelt and the Lusaka Central Provinces.

Table 3. Proportion of population by broad age groups by province, 1974

	Proportion of Population age groups (in percentage)			
	Total	0-14	15-49	50+
Central (including Lusaka)	100	50.1	44.0	5.9
Copperbelt	100	53.0	43.2	3.8
Eastern	100	52.0	37.6	10.4
Luapula	100	54.5	36.9	8.6
Northern	100	53.4	37.0	9.6
North-western	100	52.3	37.2	11.5
Southern	100	55.0	37.6	7.4
Western	100	46.6	38.2	15.2
Total Zambia	100	52.0	40.0	8.0

THE ROLE OF POPULATION IN PLANNING ECONOMIC AND SOCIAL DEVELOPMENT

8. The role of population in planning the social and economic development of a country is two fold. On the one hand, population plays a major part in determining the supply of labour and entrepreneur which are essential ingredients in the production of goods and services in a nation, while on the other hand, it defines the quantum of consumers, their composition, and thus gives a firm basis upon which to build in attempting to satisfy the people's needs. Given this, the Zambian planner has reacted variously to the population variable.

PLAN POLICIES AND POPULATION VARIABLES

9. The most noticeable feature of Zambia's population is the very high proportion of young children. This type of age structure accentuates the dependency burden (including the aged). Thus each able-bodied and working individual has to support a larger number of dependants. Another feature is the high rate of population growth, which has many implications in terms of economic and social needs. It directly affects the growth of per capita income, reducing it especially in the light of the economic recession experienced over the last five years.

With reference to the age structure, the faster the growth of population the greater the proportion of the population in the non-productive age group, and hence the fewer the resources that can be released for increasing and for increasing per capita consumption.

10. Although a fast rate of population growth will reduce the proportion of the population in the working age group, there will still be a very large number of people mainly unskilled and semi-skilled workers, seekingemployment. For instance, in 1969, 403,442 persons were available for work in the working age group. Over-time, high rates of population growth will intensify the present acute problem of finding satisfactory paid employment in the working age groups. In Zambia as in many other countries, population growth has a direct bearing on employment.

11. The consequences of a high rate of population growth are particularly acute in their impact on government capital and recurrent expenditure on social services like education and health. (see tables 4 and 5 below). A large part of available government funds is being used to provide such facilities as education, health, and so on, merely to maintain the present level of living. This has had detrimental effects on the availability of funds for productive investment, which has inevitably, in conjunction with other factors, led to the stagnation in employment opportunities in the organized sectors and to a slowdown in the rate of economic growth.

Table 4. Government capital and recurrent expenditure on education (in thousands of Kwachas)

Year	Recurrent	Capital	Total
1964-65 (a)	16 148	4 286	20 434
1970	44 391	11 672	56 063
1975	81 790	18 554	100 344
1980	108 460	7 310	115 770

Note: (a) The Government financial year used to run from July to June but starting with 1968 the financial year coincides with the calendar year.

On the health front, the Government is committed to a free and expandingmedical service with health centres and clinics within walking distances.

Table 5. Government capital and recurrent expenditure on Health

(in thousands of Kwachas)

Year	Recurrent	Capital	Total
1964-65 (a)	6 616	570	7 186
1970	20 052	7 179	27 231
1975	35 602	4 548	40 150
1980	64 402	4 350	68 852

Note: (a) The Government financial year used to run from July to June, but starting with 1968 the financial year coincides with the calendar year.

12. As indicated earlier, the urban population of Zambia in 1969 and 1974 was 29.4 per cent and 35.6 per cent respectively, and was estimated to be about 40 per cent in 1979. These figures show a high rate of urban population growth which is brought about by in-migration, which has its own problems. For instance, rapid urbanization has resulted in the prevalence of high unemployment in the cities and towns. There are problems of inadequate housing and shortage of other supporting amenities.

13. One of the most interesting aspects of Zambia's rural-urban drift stems from some factors which have been an unplanned consequence of planning itself. It is well known that the first pre-requisite of any rural development process is the provision of trained manpower to undertake work. Accordingly, efforts were made to expand education. Table 6 shows the number of primary and secondary school pupils by year. The success of the education policy has been such that by now over 80 per cent of the school going age are able to have at least seven years of primary schooling. Educational success had unfortunately had detrimental effects which were not intended by the educational planners. Available results of household budget surveys carried out by the Central Statistical Office show that in the case of urban areas the higher the standard of education that an individual attains, the more likely he is to be employed and in receipt of

Table 6. Number of primary and secondary school pupils

Year	Primary	Secondary
1964	378 417	13 853
1966	473 432	23 989
1968	608 893	42 388
1970	699 670	52 472
1972	777 873	60 051
1974	858 191	65 764
1977	936 817	83 757
1978	963 960	85 362
1979	985 528	86 253

a regular wage. Furthermore, there is a positive correlation between income level and education level attained. On the other hand, in the case of rural areas one finds no such relationship between income and education. Obviously, therefore, if a young man or woman wants to better his or her earning capacity after he or she has attained grade 7 and above, the best solution is to trek to the urban areas where his/her school qualifications will pay more.

CONCLUSION

14. The foregoing presentation gives an over all perspective of Zambia and gives some major implications of continued demographic trends of the country for future social and economic advancement.

15. There is no doubt that the population of Zambia is growing rapidly. This rapid growth leads to a large proportion of the population being below 15 years, which has implications for the dependency burden on the few people in the labour force, education, health services, urbanization, migration and so on. The role of government activity becomes important in trying to curb the situation before it gets out of hand. Some of the measures the Zambian Government is taking through planning are:

(a) Rural reconstruction to improve the lot of the rural population and, as a consequence, keep down the rural-urban drift;

(b) Relocation of industries in provincial centres;

(c) Improvement in the status of women in all areas in order to match their male counterparts in economic opportunities and social roles;

(d) Improvement in educational standards in all areas and hence the desired national goal of universal primary education;

(e) Expansion of health facilities including measures on family formation;

(f) Redistribution of income by reducing differentials in paid employment as well as trying to reduce the urban rural gaps.

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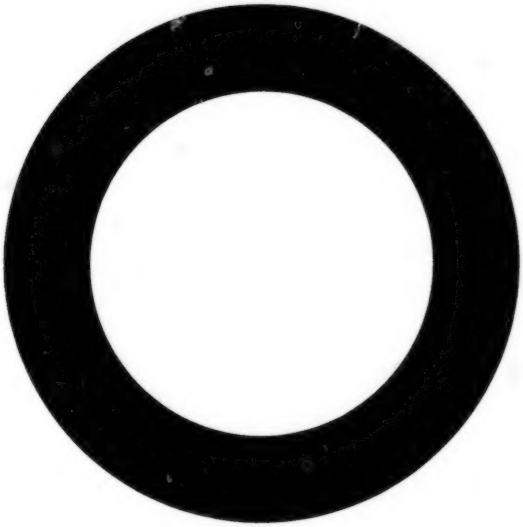

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